WHAT TO EXPECT ON THE **ISEE**

ERB | **ISEE**® INDEPENDENT SCHOOL ENTRANCE EXAM

UPPER LEVEL: CANDIDATES FOR GRADES 9–12

The only authorized guide produced by ERB

What to Expect on the ISEE

A Preparation Book for Students and Their Parents

Upper Level

Dear Student,

You are probably going to be taking the Independent School Entrance Exam (ISEE) sometime soon, and we hope that this book will help you in preparing for this experience.

This book is intended to help you become familiar with the ISEE. The questions that you will see in the "Sample Questions" and the "Practice Test" sections are not the same questions that you will find on the real test, but they are similar to those questions and have been written by the same people who wrote the actual ISEE. You will also have a chance to become familiar with the exact directions on the test. Even the answer sheets we have included are the same!

Please be sure to read the test directions on page 67 and the explanation of your score report on pages 125–131, since the ISEE may be different from other tests you have taken in the past.

We hope that after spending some time with this book, you will know more about what to expect on your test day and feel comfortable with the types of questions, the directions, and the answer sheet on the ISEE. We wish you and your family the best of luck as you embark on this exciting educational adventure.

With warm regards,

The ISEE Staff

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TO THE

ISEE®

UPPER LEVEL

Background Information

What Is the ISEE?

The Independent School Entrance Exam (ISEE) is an admission test developed by the Educational Records Bureau (ERB) for its member schools as part of their admission process. The ISEE was created by Measurement Incorporated, Durham, NC, and ERB, with assistance from faculty of ERB member schools.

The current edition has been updated to include educational assessment best practices and to align with national standards in English and mathematics as articulated in standards adopted by the National Council of Teachers of English (NCTE) and the National Council of Teachers of Mathematics (NCTM). Nearly two-thirds of the questions on the ISEE were developed by ERB-member faculty and administrators from a cross section of independent schools across the United States under the direction of test development specialists at Measurement Incorporated.

The ISEE is the admission test of choice for many independent schools throughout the country and abroad. Test sites are available in numerous cities during the admission testing season. The ISEE consists of five sections at three levels designed to measure the verbal and quantitative reasoning and achievement of students in grades 4–11 seeking admission to grades 5–12 in independent schools. Students seeking admission to grades 5 or 6 take the Lower Level; students seeking admission to grades 7 or 8 take the Middle Level; and students seeking admission to grades 9–12 take the Upper Level.

Students may register to take the ISEE up to three times in a 12-month admission cycle, once in any or all of the three testing seasons. The seasons are Fall (August–November), Winter (December–March), and Spring/Summer (April–July). ISEE does not encourage multiple testing, but we do offer students and families that option.

The five sections that make up the ISEE are (in order of testing): **Verbal Reasoning, Quantitative Reasoning, Reading Comprehension, Mathematics Achievement**, and an **Essay** which is written by the student in his or her own handwriting in response to a given writing prompt. Each section is designed to tap into a unique aspect of a student's preparation for academic work.

The first four sections consist entirely of multiple-choice questions. Results are reported in percentile ranks; that is, each student's performance is measured against a norm group made up of students applying to independent schools in the same grade who have tested over the past three years. The essay is not scored but sent directly to the school(s) to which the student has applied, along with the score report. More will be said about how the test is scored on pages 18–20.

How Does a Student Arrange To Take the ISEE?

Students may take the ISEE in one of the following ways:

1. The ISEE is given by consortia of schools in cities throughout the United States where schools have joined together and have chosen to use a common entrance test program.

2.   The ISEE is given at individual school test sites, either open or closed, at a wide variety of schools throughout the country and abroad and on a number of test dates.

3.   The ISEE offers a variety of testing options. We are pleased to offer the ISEE in both a paper-pencil and an online format at ISEE test site schools, ISEE testing offices, and Prometric Test Centers.

Complete registration information may be found in the *ISEE Student Guide*, which is updated each year and is available from the independent schools who administer the test. For online registration information, visit www.iseetest.org.

What Types of Questions Are on the ISEE?

The first four sections are composed of multiple-choice questions. The fifth section, the essay, is not scored but requires the student to respond in his or her own handwriting to a preselected writing prompt.

The first two sections, **Verbal Reasoning** and **Quantitative Reasoning**, measure the applicant's reasoning ability.

- The Upper Level **Verbal Reasoning** section consists of two types of items: vocabulary and sentence completion. Each vocabulary item consists of an abstract, grade-level appropriate word followed by four possible answer choices. Each sentence completion item consists of a sentence with one missing word or pair of words followed by four potential answer choices. A student must select the word or pair of words that most appropriately completes the context of the sentence.

- At the Upper Level, the **Quantitative Reasoning** section consists of word problems and quantitative comparisons. The word problems differ somewhat from traditional mathematics achievement items in that some of them require either no calculation or simple calculation. The quantitative comparison items present two quantities, (A) and (B), and ask the student to select one of four answer choices:

    (A)   The quantity in Column A is greater.
    (B)   The quantity in Column B is greater.
    (C)   The two quantities are equal.
    (D)   The relationship cannot be determined from the information given.

The next two sections, **Reading Comprehension** and **Mathematics Achievement**, measure the applicant's ability to correctly answer curriculum-based concepts that are appropriate at that grade level according to curriculum standards adopted by the National Council of Teachers of English (NCTE) and the National Council of Teachers of Mathematics (NCTM).

- In order to determine a student's reading comprehension skills, in the **Reading Comprehension** section, the student is asked to read a passage and then answer items specific to that passage.

    The six passages in this section are age-appropriate and length-appropriate. Each passage is especially written to contain contemporary information and to be of high interest to students testing for grades 9 through 12. The passages cover a variety of subject areas including arts, contemporary life, history, and science.

- **Mathematics Achievement** items conform to national mathematics standards and ask the student to identify the problem and find a solution to a problem. The items require one or more steps in calculating the answer.

The **Essay** is written by the student in response to a writing "prompt" or topic that is grade-level appropriate. The prompts rotate throughout the testing season. They are designed to prompt a student to write an informed essay on a particular topic. As is true of the passages in the **Reading Comprehension** section, these prompts have been written for a contemporary feel and a high level of interest to current students. Each prompt is free of bias, global in scope, and representative of a wide variety of subjects. Each prompt is one or two sentences long and asks students to respond to the situation described. Prompts may relate to the student, to the student's community, or to the world in general.

ERB does not score the written essay. They send a copy of the essay to the school(s) designated on the ISEE registration form along with the scores on the rest of the test. They do not send a copy of the essay to the parents.

Information for Students

Why Is the ISEE Required?

The school you are applying to has requested ISEE scores as part of the overall admissions process. By requiring an admission test for all students entering the same grade, the school can view one common item of all applicants. The school looks at many items in conjunction with the ISEE scores, including your application, your current school records, and possibly an interview. All components of the admission process, including the ISEE scores, help the school, you, and your family determine the best school match for you.

What Happens to My Scores?

After paper testing, answers and essays are sent to the ISEE Operations Office for scoring of the four multiple choice sections and production of the Individual Student Report (ISR). Copies of the ISR may be emailed to the parent, ERB members, or both. The ISR is posted to the parent online account after scoring, which is approximately 10–14 days after testing. The essay, which is not scored and not released to the parent, is released online (with the ISR) to ERB members. School score reports do not list any recipients other than the individual school receiving the report.

How Will This Book Help Me?

Unlike other ISEE test preparation materials, this book was written by the same people who developed the ISEE. The sample questions and practice test questions in this book include actual questions from previous versions of the ISEE. Use this book to

- see what the ISEE looks like and how it is structured;
- read sample questions and answers with an explanation of each correct answer choice;
- read the exact directions that you will be given when you take the ISEE;
- take a practice test that has questions like those on the real ISEE; and
- use an answer sheet like the one you will use when you take the ISEE.

We hope that working through this book will make you feel even more confident and prepared when you take the ISEE because you will know what to expect.

Information for Adults

How This Book Can Help Your Student Prepare for the ISEE

The information in this book offers your student an opportunity to become familiar with all aspects of the ISEE. It is particularly helpful because the sample questions and practice test questions were either chosen from previous editions of the ISEE or were written by ERB-member school faculty and administrators and by experts in test development. Using this book will allow your student to

- read and answer sample questions, check for the correct answers, and then read the explanations for why the answers are correct;
- take a practice test that contains questions similar to those on the actual ISEE, see a sample answer sheet that is like the answer sheet on the real test, and read the actual directions he or she will receive on the day of the test; and
- score the practice test and compare that score with those of other students who took the actual ISEE.

How You Can Help Your Student Prepare for the ISEE

There are specific ways you may help prepare your student, not only for the ISEE, but for other standardized tests as well.

- Show confidence in your student's ability to do well on the ISEE.
- Remind your student that the ISEE is just one piece of information a school will use in its admission process.
- Mark the test date on your calendar so that both you and your student are aware of the date.
- Make sure that your student gets a good night's sleep before the test.
- Make sure that your student eats a healthy breakfast before the test.
- Encourage your student to read as part of his or her daily routine. By reading new materials, your student will be exposed to new concepts and vocabulary.

Reminders for Your Student

Remind your student to employ the following helpful strategies when answering multiple-choice questions.

- Read the entire question before attempting to answer it.
- Try to answer the question without looking at the choices. Then, look at the choices to see if your answer is the same as, or close to, one of the choices. Wherever possible, answer choices on this test are arranged alphabetically, numerically, or by length of the answer to help the student locate the correct answer more quickly.
- Next, eliminate answers you know are not correct.
- Finally, choose the correct answer. If necessary, make an educated guess from the remaining choices, since there is no penalty for incorrect responses.

Frequently Asked Questions

Q: Which level of the ISEE does my student take?

A: There are three levels of the ISEE.

- Students currently in grades 4 and 5 (applicants to grades 5 or 6) take the Lower Level.
- Students currently in grades 6 and 7 (applicants to grades 7 or 8) take the Middle Level.
- Students currently in grades 8 and above (applicants to grades 9–12) take the Upper Level.

Q: Are there multiple versions of the ISEE?

A: At each of the three levels, there are several different, but equivalent, forms. The specific forms to be used each year will be determined in advance by ERB. These forms are randomly assigned to the students and are statistically equivalent, regardless of which form was actually taken by the student.

Q: How is the ISEE structured?

A: Each level and each form of the ISEE has five sections. The sections are administered in the following order:

- Verbal Reasoning
- Quantitative Reasoning
- Reading Comprehension
- Mathematics Achievement
- Essay

The sections and the essay are explained more fully in the next part of this book.

Q: What can my student expect at the test site on the day of the test?

A: Students will present their verification letter or identification to be checked in upon arrival. So that your child may concentrate on doing his or her best on the ISEE, schools do not conduct admission activities or highlight their schools on the day of testing. We know that testing may be stressful for some students; therefore, the test administrators are teachers or other school personnel who teach or interact with children on a daily basis. Although test administrators may not discuss test questions during the test, they give clear test directions, and your child is encouraged to ask for clarification, if necessary, before beginning each section of the test.

Q: What types of questions are on the ISEE?

A: The Verbal Reasoning, Quantitative Reasoning, Reading Comprehension, and Mathematics
Achievement sections contain only multiple-choice questions. Each question has four
choices. Only one answer is the correct or "best" answer. The Essay section requires the
student to write an essay in response to a prompt. There are over one hundred writing
prompts (topics) that have been developed for each level of the ISEE. A different topic is
selected by ERB for each test administration throughout the year.

Q: How much time will be allotted for each section on the actual Upper Level ISEE?

A:

TIME ALLOTTED FOR EACH SECTION
ON THE ACTUAL UPPER LEVEL ISEE

Section	Number of Questions	Time Allotted (in minutes)
Verbal Reasoning	40	20
Quantitative Reasoning	37	35
Reading Comprehension	36	35
Mathematics Achievement	47	40
Essay	1 prompt	30
	Total Time	**160**

Each section of the ISEE (excluding the essay) contains several questions that will not be
scored but may be used on future editions of the ISEE.

Q: Are there any scheduled breaks during the test?

A: There are two breaks—one following the Quantitative Reasoning section and another
following the Mathematics Achievement section. Each break is five to ten minutes long.

**Q: I am confused by these acronyms: ERB, ISEE, CTP. Didn't my student take one of
these already this year?**

A: The Educational Records Bureau (ERB) oversees both the Independent School Entrance
Exam (ISEE) and the Comprehensive Testing Program (CTP). The ISEE is a test designed to
help admission directors at selected public and independent schools decide who will be
accepted for admission to their schools, while the CTP is a battery of tests designed to collect
information about student achievement for students currently enrolled in grades 1–10.

Both the ISEE and the CTP test student abilities in Verbal Reasoning, Reading Comprehension, Quantitative Reasoning, and Mathematics. They also contain similar types of items. Therefore, it is quite possible that your student may be somewhat familiar with the types of questions on the ISEE if he or she has previously taken the CTP. However, it is important to note that there is no repeat of specific items between the two tests. The ISEE is unique in that it is used for admission purposes only and its norms are based only on applicants to independent schools.

Q: **Are there other books or programs that might help my student improve on the ISEE?**

A: This is the only book approved by ERB. It was written in conjunction with the test developer, Measurement Incorporated. This book contains current and accurate information.

Since this book was written by the developer of the actual test, the sample questions and practice test questions were chosen to accurately reflect the format and the kinds of content your student will see on the actual ISEE. You may see programs or materials advertised that claim to help; however, none of them are approved by ERB, nor can they claim the intimate knowledge of the actual test questions used on this edition.

Q: **What materials does my student need to bring to the actual ISEE?**

A: For paper testing only, students should bring four #2 pencils and two pens with either blue or black ink. Students may choose to use erasable ink.

Q: **Are there materials that my student is prohibited from using during the ISEE?**

A: Most materials other than writing implements are prohibited. Specifically, **scratch paper, calculators, calculator watches, rulers, protractors, compasses, dictionaries,** and **thesauruses** are **NOT** permitted during the actual test.

Cell phones and other electronic devices (iPods, MP3s, beepers, etc.) are not permitted at the test site and must not be brought into the testing room. If a student uses any of these items during the exam, his or her exam will be invalidated. Since students are not permitted to use these devices on the actual test, it is recommended that they avoid using them when they answer the sample test questions or take the practice test. A certain number of these restrictions may be waived for students who receive testing accommodations due to documented disabilities.

Q: **Are testing accommodations made if my student requires them?**

A: Accommodations may be made for students with documented learning differences or physical challenges. Accommodation use in school and supporting documentation of the disability are required. For more information, please go to www.iseetest.org and click on "Accommodations."

Q: Will my student be penalized for a wrong answer? Is it appropriate to guess?

A: Scores are based on the number of correct answers. If the student can eliminate at least one of the choices, he or she should make an educated guess from the choices that remain. A wrong answer and an omitted answer count the same. However, it is better to move ahead to the next item and return to the puzzling one later. No student is expected to answer all questions correctly.

Q: How is my student compared to other students taking the ISEE?

A: Your student is compared only to other independent school applicants who tested for the same grade during the past three years. Your student is not compared to students applying to a different grade who are taking the same level of the test. The percentile ranking on the score report shows how your student scored in comparison to the other students applying to the same grade. The group of students who take the ISEE—the ISEE norming population—is a very select group of students who are applying to competitive schools. Therefore, ISEE percentile ranks are generally lower—anywhere from 10 to 40 percentile points lower—than those on other tests that use national norms. The schools that use the ISEE are familiar with ISEE scores and the group of students taking the ISEE. You may wish to check with the school(s) to which you are applying to learn the range of ISEE scores expected for applicants to their school(s).

Q: How soon will I receive my student's scores?

A: The ISR is posted to the parent online account after scoring, which is approximately 10–14 days after testing. For paper testing, optional expedited receipt of scores online is available to you for an additional $40. This enables the parent to receive the scores on the day the test is scored. An email will be sent to notify you when the scores have posted to your online account, usually the Monday, Wednesday, or Friday after the test.

Q: What is the raw score?

A: A raw score represents the number correct. If a student got 23 items correct—say on a test of 40 questions—then the raw score is simply 23.

Q: What does the scaled score mean?

A: A scaled score is a raw score that has been converted to a different numerical scale, for example, 200–800. The raw score scale ranges from 0–maximum score, while the scaled score range consists of higher numbers with a somewhat arbitrary minimum and maximum score. The range of scaled scores on the ISEE is 760–940.

Q: To whom is my student being compared on his or her score report?

A: As stated previously, your student is compared only to other independent school applicants who have applied to the same grade during the past three years. There is no comparison specifically to other students who took the test at the same test site or to other applicants who tested on the same day.

Q: **What is a "good" percentile score?**

A: The notion of "good" is relative and may only be defined by the specific school. Please check with them for more information on how each plans to use the scores from the ISEE in their admission process.

Q: **What is a stanine?**

A: A stanine score is simply another scale and is based on percentile ranks. Percentile ranks range from 1–99, while stanines range from 1–9. In general, a stanine score of 1–3 is below average, 4–6 is average, and 7–9 is above average.

Percentile Rank	Stanine
1–3	1
4–10	2
11–22	3
23–39	4
40–59	5
60–76	6
77–88	7
89–95	8
96–99	9

Q: **Are my student's scores good?**

A: Each school uses the scores on the ISEE as part of the total application process and according to its own criteria. Thus, there is no way to determine a "good" or "bad" score. Each school will use several pieces of information about your student as it evaluates his or her application. These may include the student's academic record (report card, transcript, etc.), teacher recommendation(s), notes from a personal interview, and extracurricular activities and interests.

Q: **How will I know if my student passed or failed?**

A: Students do not pass or fail the ISEE. There is no cutoff point that determines pass/fail status or divides students into these two groups. There is no cutoff (or pass/fail) score recommended by ERB.

Q   **What are the schools looking for?**

A: Each independent school determines who is admitted based on a variety of criteria. Each school usually has a range of scores that, from experience, indicates if an applicant is likely to be a good fit at the school. Check with the schools to which your student is applying for more information. Remember, there are many pieces of information used in selecting applicants, and your student's score on the ISEE is only one of these.

Q: **How does the ISEE compare with other tests?**

A: Each standardized test has its own characteristics. There is no available formal comparison between the ISEE and other national tests such as the Iowa Test of Basic Skills, the Stanford 9, or other similar testing instruments.

Q: **How is the essay scored?**

A: The essay, which is not scored and not released to the parent, is released online (with the ISR) to ERB members. Evaluation is based on each individual school's criteria.

SAMPLE TEST QUESTIONS

AND ESSAY

ISEE®

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Verbal Reasoning
(Section 1)

The ISEE has a Verbal Reasoning section that is composed of two different kinds of questions: synonyms and sentence completions. Both kinds of questions test your vocabulary and reasoning ability.

Synonym questions focus on word recognition, since the correct answer choices are those that have the same meaning, or are closest in meaning, to the word in the question. Synonyms also test your ability to reason, because you must choose the word that is most nearly the same in meaning to the word in the question from among four answer choices.

> *Strategy:* Since the answer choices are listed in alphabetical order, think of a word that first comes to mind when you read the synonym and then look for it (or a word like it) in the list.

Sentence completion questions measure your ability to understand words and their function. Correct answers are based on clues that appear in the context of the sentence. In the Upper Level forms of the ISEE, the sentence completion answer choices are words or pairs of words that logically complete the meaning of the sentence as a whole.

> *Strategies:*
>
> - Read each sentence to get the overall meaning.
> - Focus on key words or clue words in the question to help you determine the correct answer.
> - Mentally fill in the blank with your own answer and then find the answer choice that is closest in meaning to your own answer. If there are two blanks, the correct answer must be the best answer for both blanks.
> - Remember that there is almost always a word or pair of words that obviously points to the correct answer.
> - Use word clues such as *although*, *because, if, since*, or *therefore* to help you figure out the relationships in the sentence.
> - After you choose your answer, go back and reread the whole sentence to be sure that it makes sense.

Synonyms

Students should be able to

- recognize many of the vocabulary words found on high school graded word lists; and
- select the word from the answer choices that is closest in meaning to the word in question.

Sample Questions

Directions: Answer the following sample questions by selecting the word that is most nearly the same in meaning as the word in capital letters. Darken the circle for your answer choice in the sample answer sheet at the bottom of the page. After you finish answering the questions, turn to the next page and evaluate your answers.

1. CHAGRIN:

   (A) courtesy
   (B) distress
   (C) geniality
   (D) temperance

2. PARSIMONIOUS:

   (A) artificial
   (B) disorganized
   (C) frugal
   (D) voracious

3. SIMULATE:

   (A) feign
   (B) integrate
   (C) oversimplify
   (D) rouse

Sample Answer Sheet: Darken the correct answer for each item.

1 Ⓐ Ⓑ Ⓒ Ⓓ

2 Ⓐ Ⓑ Ⓒ Ⓓ

3 Ⓐ Ⓑ Ⓒ Ⓓ

Answers to Sample Questions

Sample Question 1:

CHAGRIN

Your task is to select the answer choice that is closest in meaning to the word "chagrin." "Chagrin" as a noun means disquietude or displeasure as a result of loss or disappointment (as in "When Bobby Fischer lost the chess tournament in the last minutes of the game, his *chagrin* was evident."). Choice **(B)**, **distress**, is the only answer choice that is a synonym for "chagrin" and is, therefore, the correct answer.

Sample Question 2:

PARSIMONIOUS

"Parsimonious" is an adjective that can mean one is resourceful, thrifty, or even stingy (as in "Saving every dime he earned characterized Robert's *parsimonious* behavior."). Choice **(C)**, **frugal**, is the correct answer because it is the only answer choice that expresses one of these meanings.

Sample Question 3:

SIMULATE

"Simulate" means to represent, copy, or imitate (as in "Man may have been attempting to *simulate* the flight of birds with his invention of the airplane."). Choice **(A)**, **feign**, best expresses the meaning of "simulate."

Sentence Completion

> Students should be able to
>
> - use context clues to select the word or pair of words that correctly completes the sentence.

Sample Questions

Directions: Answer the following sample questions. Select the word or pair of words that most correctly completes the sentence. Darken the circle for your answer choice in the sample answer sheet at the bottom of the page. After you finish answering the questions, turn to the next page and evaluate your answers.

Note: To assist you in finding the right answer among the answer choices, one-word answers are listed alphabetically and two-word answers are listed alphabetically by the first word.

1. Always -------, the journalist actively questioned the relevant viewpoints on both sides of the issue.

    (A) enigmatic
    (B) ignoble
    (C) impartial
    (D) partisan

2. Because the Jackson House Inn on Martha's Vineyard maintains ------- accommodations, guests routinely contribute ------- comments on the inn's Web site.

    (A) arbitrary . . . amiable
    (B) immaculate . . . laudatory
    (C) reprehensible . . . cordial
    (D) utilitarian . . . inconsiderate

3. In recent years, poultry producers have been working to ------- the widespread ------- that eggs cannot be part of a healthy diet.

    (A) ameliorate . . . credentials
    (B) dispel . . . fallacy
    (C) disperse . . . franchise
    (D) invoke . . . reprimand

Sample Answer Sheet: Darken the correct answer for each item.

1 Ⓐ Ⓑ Ⓒ Ⓓ

2 Ⓐ Ⓑ Ⓒ Ⓓ

3 Ⓐ Ⓑ Ⓒ Ⓓ

Answers to Sample Questions

Sample Question 1:

The purpose of this sentence is to identify the journalist as someone who is fair and unbiased and who investigates "both sides of the issue." The best answer is **(C)**, **impartial**, which means fair.

Sample Question 2:

This item asks you to select the best pair of words that will logically complete the sentence. The first blank eliminates choice (A) because "accommodations" usually are not described as "arbitrary." Of the remaining three choices, choice (C) can be eliminated because if "accommodations" are considered "reprehensible," the Web site comments would not be "cordial." Similarly, the "accommodations" in choice (D) that are "utilitarian" would not elicit "inconsiderate" feedback. The "accommodations" can be **immaculate** and, if so, the "comments on the inn's Web site" would be **laudatory**. Therefore, choice **(B)** is the best option.

Sample Question 3:

This item also asks you to select the best pair of words to fit the two blanks. The verbs for (A), (B), (C), and (D) are possible choices in the first blank. The phrase "cannot be part of a healthy diet," however, suggests that the word **fallacy**, choice **(B)**, best produces a sentence with the most logical meaning as a whole.

Quantitative Reasoning
(Section 2)

Quantitative Reasoning is one of two math sections on the ISEE. This section is designed to show how your reasoning skills have developed. It tests your ability to use your understanding of mathematics to develop your own opinions about how to solve math problems. It does not test the amount of math you have learned, but how well you think mathematically. Quantitative Reasoning questions require little or no calculations; the emphasis is on your ability to reason mathematically. You may be asked to

- estimate numerical values;
- employ logic to determine what a particular problem is about;
- compare and contrast quantities;
- analyze and interpret data;
- analyze, compare, predict, draw conclusions, and summarize graphs;
- use reason to calculate the probability of events;
- understand concepts and applications of measurements; and
- know how to arrive at statistical solutions to problems that are given.

All questions found in the two math sections of the ISEE are linked to the National Council of Teachers of Mathematics (NCTM) Standards. The ISEE uses the following NCTM strands as a basis for the Quantitative Reasoning section:

- Numbers and Operations
- Algebra
- Geometry
- Measurement
- Data Analysis and Probability
- Problem Solving

In the Quantitative Reasoning section of the Individual Student Report (ISR), these strands are NOT identified. However, to help you best prepare for this section of the ISEE, the answers to the practice test questions are identified by the NCTM standards. For more information on these strands, visit the NCTM Web site at www.nctm.org.

This section has two types of questions: word problems and quantitative comparison questions.

Strategies for Word Problems:

- Read the question and determine exactly what you are being asked to find.
- Determine what information is relevant and what is irrelevant.
- Cross out the irrelevant information in your test booklet.
- Next, ask yourself, "What steps do I need to use to find the answer?" and "Can I do this by estimating and not by actual calculations?"

- Make a best guess at the correct answer, then look to see if that answer is given.
  (Note: On the ISEE, all answer choices are listed in sequential order from greatest to least, or least to greatest.)
- Next, eliminate all answer choices that are not reasonable.
- Since there is no penalty for guessing, choose the answer that seems most reasonable.

Remember, there is only one correct answer for each question. The answer choices often represent common mistakes or misconceptions, but they are not intended to trick you. You may write in the test booklet.

Strategies for Quantitative Comparison Questions:

- The quantitative comparison questions are not in the standard question format found in other sections of this test, but rather two quantities are to be compared. The quantities are shown in two columns: Column A and Column B.
- All comparison questions have the same four answer choices. To save you time in reading the questions, the answer choices in this subsection are not given after each question, but are shown at the top of each page. The answer choices for all questions in this subsection are:

  (A) The quantity in Column A is greater.
  (B) The quantity in Column B is greater.
  (C) The two quantities are equal.
  (D) The relationship cannot be determined from the information given.

- Before doing any mental math or calculations to compare the quantities, first determine if you have enough information to compare the quantities. If not, choose answer D: "The relationship cannot be determined from the information given."
- If you need to do calculations to compare the quantities, when possible, make estimates of the quantities and write your estimate in its corresponding column.
- Since there is limited reading required in this section, many questions show only the two quantities you are to compare. However, some questions give additional information before or after the quantities you are to compare; therefore, be sure you read all the information given very carefully before answering the question.

Numbers and Operations

Students should be able to

- understand numbers, relationships among numbers, meanings of operations, and relationships among operations.

Sample Questions

Directions: Answer the following sample questions. To answer the first question, select the answer that best illustrates numbers and operations. Darken the circle for your answer choice in the sample answer sheet at the bottom of the page.

1. If *a* is a factor of *n* and *b* is a factor of *m*, which statement is true?

   (A)   *nm* is a multiple of *ab*
   (B)   *n* is a multiple of *ab*
   (C)   *nm* is a factor of *ab*
   (D)   *n* is a factor of *ab*

Directions: To answer the second question, compare the quantity in Column A to the quantity in Column B, and select the correct comparison from the answer choices (A)–(D) shown below the question. Darken the circle for your answer choice in the sample answer sheet at the bottom of the page. After you finish answering both questions, turn to the next page and evaluate your answers.

2.
| Column A | Column B |

$$\left(\frac{1}{17}\right)^{-2} \qquad\qquad\qquad \left(\frac{1}{17}\right)^{-\frac{1}{2}}$$

   (A)   The quantity in Column A is greater.
   (B)   The quantity in Column B is greater.
   (C)   The two quantities are equal.
   (D)   The relationship cannot be determined from the information given.

Sample Answer Sheet: Darken the correct answer for each item.

1   Ⓐ Ⓑ Ⓒ Ⓓ

2   Ⓐ Ⓑ Ⓒ Ⓓ

Answers to Sample Questions

Sample Question 1:

The correct answer to the question is answer choice **(A), *nm* is a multiple of *ab***.

One way the answer can be found is by recognizing that the product of *ab* will be a factor of *nm* and so *nm* is a multiple of *ab*.

Another way the answer can be found is by using an example. Assume $a = 3$, $b = 5$, $n = 6$, $m = 20$; $15 \times 8 = 120$, so 120 is a multiple of 15. Notice that 6 is not a multiple of 15, 120 is not a factor of 15, and 6 is not a factor of 15. When you use an example, if two statements are correct, choose another example until the answer can be narrowed to one correct statement.

Sample Question 2:

The correct answer to the question is answer choice **(A): The quantity in column A is greater**.

The quantity in Column A is 17^2, which can be estimated to a value between $100 = 10^2$ and $400 = 20^2$.

The quantity in Column B is $\sqrt{17}$, which can be estimated as a value between 4 and 5.

Therefore, the answer is **(A)**.

Algebraic Concepts

Students should be able to

- understand, represent, and analyze mathematical, algebraic, and graphical situations involving patterns, relations, and functions.

Sample Questions

Directions: Answer the following sample questions. To answer the first question, select the answer that most clearly illustrates the concepts asked for. Darken the circle for your answer choice in the sample answer sheet at the bottom of the page.

1. If $x^2 + y^2 = 40$ and $2xy = 24$, what is the value of $(x + y)^2$?

(A)   8
(B)   16
(C)   64
(D)   960

Directions: To answer the second question, compare the quantity in Column A to the quantity in Column B, and select the correct comparison from the answer choices (A)–(D) shown below the question. Darken the circle for your answer choice in the sample answer sheet at the bottom of the page. After you finish answering both questions, turn to the next page and evaluate your answers.

2.

Column A	Column B
x^2	x^3

(A)   The quantity in Column A is greater.
(B)   The quantity in Column B is greater.
(C)   The two quantities are equal.
(D)   The relationship cannot be determined from the information given.

Sample Answer Sheet: Darken the correct answer for each item.

1   Ⓐ Ⓑ Ⓒ Ⓓ

2   Ⓐ Ⓑ Ⓒ Ⓓ

Answers to Sample Questions

Sample Question 1:

The correct answer to the question is answer choice **(C), 64**.

One way the answer can be found is by recognizing that

$$(x + y)^2 = x^2 + 2xy + y^2, \text{ so } (x + y)^2 = 40 + 24 = 64.$$

Another way the answer can be found is by determining the values of x and y.

$$\begin{aligned}
\text{Since } 2xy &= 24, \\
xy &= 12, \\
2 \times 6 &= 12, \\
2^2 + 6^2 &= 40, \\
(2 + 6)^2 &= 64.
\end{aligned}$$

Sample Question 2:

The correct answer to the question is answer choice **(D): The relationship cannot be determined from the information given**.

One way the answer can be found is by choosing several values for x and substituting them into the expressions in each column. When choosing values for x, remember to use values less than 0, between 0 and 1, and greater than 1.

For $x = -3$, Column A is 9 and Column B is –27.

For $x = \dfrac{1}{2}$, Column A is $\dfrac{1}{4}$ and Column B is $\dfrac{1}{8}$.

For $x = 4$, column A is 16 and Column B is 64.

The result of the comparison depends on the value of x, and so the answer is **(D)**.

Geometry

Students should be able to

- analyze characteristics of geometric figures; and
- visualize and describe spatial relationships for geometric objects.

Sample Question

<u>Directions</u>: Answer the following sample question. To answer the question, compare the quantity in Column A to the quantity in Column B, and select the correct comparison from the answer choices (A)–(D) below the question. Darken the circle for your answer choice in the sample answer sheet at the bottom of the page. After you finish answering the question, turn to the next page and evaluate your answer.

1.
The sum of the interior angles of a polygon with *n* sides is $180(n-2)$.

Column A	Column B
The measure of an interior angle of a regular quadrilateral	The measure of an interior angle of a regular hexagon

(A)   The quantity in Column A is greater.
(B)   The quantity in Column B is greater.
(C)   The two quantities are equal.
(D)   The relationship cannot be determined from the information given.

Sample Answer Sheet: Darken the correct answer for this item.

1   Ⓐ Ⓑ Ⓒ Ⓓ

Answer to Sample Question

The correct answer to the question is answer choice **(B): The quantity in Column B is greater**.

One way the answer can be found is by recognizing that the interior angle of a regular quadrilateral is 90° and the interior angle of a regular hexagon is 120°.

Another way the answer can be found is by visualizing that the addition of two sides to a quadrilateral will open up the angles.

Measurement

Students should be able to

- develop, analyze, and use formulas for measurable attributes of objects.

Sample Question

<u>Directions</u>: Answer the following sample question. Select the answer that most clearly illustrates measurement rules. Darken the circle for your answer choice in the sample answer sheet at the bottom of the page. After you finish answering the question, turn to the next page and evaluate your answer.

1. The formula for the volume of a cone is $\frac{1}{3}\pi r^2 h$. The volume of Cone X is 2 times the volume of Cone Y. Which statement could be true?

  (A) The radius of Cone X is 2 times the radius of Cone Y, and the height of Cone X is the same as the height of Cone Y.

  (B) The height of Cone X is 2 times the height of Cone Y, and the radius of Cone X is the same as the radius of Cone Y.

  (C) The height of Cone X is 2 times the height of Cone Y, and the radius of Cone X is $\frac{1}{2}$ the radius of Cone Y.

  (D) Both the height and the radius of Cone X are 2 times the radius and the height of Cone Y, respectively.

Sample Answer Sheet: Darken the correct answer for this item.

1 Ⓐ Ⓑ Ⓒ Ⓓ

Answer to Sample Question

The correct answer to the question is answer choice **(B): The height of Cone *X* is 2 times the height of Cone *Y*, and the radius of Cone *X* is the same as the radius of Cone *Y*.**

One way the answer can be found is by recognizing that doubling the height will add a factor of 2 to the volume; if the radius is doubled, a factor of 4 will be added to the volume.

Another way the answer can be found is by choosing values for the height and the radius of Cone *Y*, calculating the volume of Cone *Y*, then calculating the volume of Cone *X* and testing which statement is true.

Assume the radius of Cone *Y* is 3 ft and the height of Cone *Y* is 4 ft.

Then the volume of Cone *Y* is 36π ft^3.

Notice that a cone with radius 3 ft and height 8 ft would have a volume of 72π ft^3, so **(B)** is correct.

Data Analysis and Probability

Students should be able to

- analyze, interpret, and make inferences about a set of data; and
- understand and apply the concepts of probability.

Sample Questions

Directions: Answer the following sample questions. To answer the first question, select the answer that best illustrates data analysis and probability. Darken the circle for your answer choice in the sample answer sheet at the bottom of the page.

1. Mrs. Grange decides to add 4 points to each of the test scores in her class. The range of the original scores is 35. What is the range of the scores with the 4 points added?

    (A) 31
    (B) 35
    (C) 39
    (D) 43

Directions: To answer the second question, compare the quantity in Column A to the quantity in Column B, and select the correct comparison from the answer choices (A)–(D) shown below the question. Darken the circle for your answer choice in the sample answer sheet at the bottom of the page. After you finish answering both questions, turn to the next page and evaluate your answers.

2.

> A bag contains 3 blue marbles, 4 red marbles, 6 green marbles, and 10 yellow marbles. Two marbles are randomly removed from the bag.

Column A	Column B
The probability that both marbles are yellow	The probability that at least one of the marbles is yellow

    (A)   The quantity in Column A is greater.
    (B)   The quantity in Column B is greater.
    (C)   The two quantities are equal.
    (D)   The relationship cannot be determined from the information given.

Sample Answer Sheet: Darken the correct answer for each item.

1 Ⓐ Ⓑ Ⓒ Ⓓ

2 Ⓐ Ⓑ Ⓒ Ⓓ

Answers to Sample Questions

Sample Question 1:

The correct answer to the question is answer choice **(B), 35**.

One way the answer can be found is by recognizing that scaling scores by adding 4 points per score will not change the difference between the highest and the lowest score.

Another way the answer can be found is by choosing a set of points with a range of 35, such as the scores 50, 60, 70, and 85. Adding 4 points to each score gives the scores 54, 64, 74, and 89. The range of the new scores is 89 – 54 = 35.

Sample Question 2:

The correct answer to the question is answer choice **(B): The quantity in Column B is greater**.

One way the answer can be found is by recognizing the fact that the possibility of both marbles being yellow is a subset of the possibility that at least one marble is yellow.

Another way the answer can be found is by calculating the probabilities.

The probability that both marbles are yellow is $\dfrac{10}{23} \times \dfrac{9}{22} = \dfrac{90}{506}$.

The probability that at least one marble is yellow is $1 - \dfrac{13}{23} \times \dfrac{12}{22} = \dfrac{350}{506}$.

Reading Comprehension
(Section 3)

The actual Upper Level **Reading Comprehension** section of the ISEE contains six reading passages; the practice test in this book contains five passages. The passages include topics related to history, science, literature, and contemporary life. Some questions ask you to find a phrase or word in the passage, so all passages show line numbers in the left margin. Each passage is followed by six questions about the passage.

Strategy: Read the passage first to get an overall view. As you read the passage, ask yourself, "What is the main idea? What facts and details are given?" As you answer the questions following the passage, use the line numbers to help you find the section or lines you may need to look at again.

A sample passage and some questions may be found on the next two pages. The types of questions you may be asked focus on six categories:

- The *Main Idea* items assess the student's ability to look for an overall message, theme, or central idea in the passage or section of the passage.
- The *Supporting Ideas* items assess the student's ability to identify explicit ideas that support the main idea or another important concept found in the text.
- *Inference* items ask the student to draw a conclusion from content not explicitly stated in the text. Inference items may ask the student to compare and contrast ideas, interpret or analyze text, and/or predict subsequent events or outcomes.
- *Vocabulary* items deal with word definitions within the context of the passage, usually in the form of "most nearly means."
- *Organization/Logic* items ask students to identify the sequence, pattern, relationship, structure, or summary of the passage and to identify the major features of different literary genres, including narrative, informational, and instructional.
- *Tone/Style/Figurative Language* items assess the student's understanding of mood, tone, point of view, and figurative language such as simile, metaphor, hyperbole, images, irony, and personification.

Sample Passage

The sample passage is followed by six questions based on its content.

1   Since the days of Nellie Bly, Latin
2 America had been for editors a place to send
3 women who insisted on being foreign
4 correspondents. Compared to Europe, Latin
5 America was considered "safely" close to
6 home. Women covered the building of the
7 Panama Canal and the occupation of Haiti by
8 the United States Marines. By the 1980's,
9 women were the accepted authorities on Latin
10 America, and they appeared in force to cover
11 repression in Chile, strife in El Salvador, and
12 the war of the Contras against the Sandinista
13 government in Nicaragua.
14   Shirley Christian, with the Associated
15 Press, staked out Latin America when it was
16 considered less than a choice assignment.
17 When revolution and terrorism promoted the
18 story to page one, her reputation soared.
19 Returning to the region for the *Miami Herald*,
20 she won the Pulitzer Prize for International
21 Reporting in 1981, the first time it was
22 awarded for coverage of Latin America.
23   Before Georgie Anne Geyer branched out
24 to cover the world, her articles for the *Chicago*
25 *Daily News* helped put Latin America on page

26 one. Geyer and Henry Gill, a *Chicago Daily*
27 *News* photographer, slipped into Guatemala in
28 1967 and traveled with guerrilla forces while
29 the Guatemalan Army, led by United States
30 officers, pursued them. Her stories dramatized
31 and drew attention to the developing crisis.
32 Her initial success in Latin America led
33 eventually to a three-times-weekly column
34 distributed by Universal Press Syndicate to
35 more than 100 newspapers. She also achieved
36 celebrity status as a panelist on the television
37 show "Washington Week in Review,"
38 produced by the Public Broadcasting System.
39   Of her career, Geyer wrote:
40   In my … lifetime I went from the
41   beginning… from the point where
42   women like me were considered
43   misfits to a point where we became
44   extremely fashionable and were
45   ironically and incongruously called
46   "role models," to the third point,
47   which is where we are trying
48   desperately to have everything.

Sample Questions

Directions: Answer the questions on the basis of what is <u>stated</u> or <u>implied</u> in the passage. Darken the circle for your answer choice in the sample answer sheet at the bottom of the page. After you finish answering the questions, turn to the next page and evaluate your answers.

1. The primary purpose of the passage is to

    (A)   provide a history of the women's movement.
    (B)   describe the living conditions in Latin America.
    (C)   describe one route by which a number of women became successful journalists.
    (D)   compare the career of Georgie Anne Geyer with the careers of Nellie Bly and Shirley Christian.

2. Lines 1–8 ("Since . . . Marines") imply that editors did all of the following EXCEPT

    (A)   consider Latin America dangerous.
    (B)   worry about the safety of female correspondents.
    (C)   publish stories by women correspondents in Latin America.
    (D)   try to dissuade women from becoming foreign correspondents.

3. Which does the author mention in the first paragraph (lines 1–13) as a reason that female reporters were sent to Latin America?

    (A)   Latin America was relatively close to the United States.
    (B)   More female reporters than male reporters spoke Spanish.
    (C)   Women were the accepted authorities on Latin America.
    (D)   The countries in Latin America admired female reporters.

4. It can be inferred from the first sentence of the passage that Nellie Bly was

    (A)   an editor.
    (B)   Latin American.
    (C)   working in Panama.
    (D)   a foreign correspondent.

5. According to the second paragraph (lines 14–22), the rise in Shirley Christian's reputation was a result of

    (A)   becoming a panelist on a weekly television show.
    (B)   the novelty of women being foreign correspondents.
    (C)   an increase in public interest in events in Latin America.
    (D)   branching out to cover the world instead of only Latin America.

6. The author quotes Georgie Anne Geyer in lines 40–48 in order to show that

    (A)   women helped prevent strife in Latin America.
    (B)   many women desire to be role models.
    (C)   female journalists have had to overcome different problems at different times.
    (D)   female journalists are now well trained compared with their earlier counterparts.

Sample Answer Sheet: Darken the correct answer for each item.

1   Ⓐ Ⓑ Ⓒ Ⓓ   4   Ⓐ Ⓑ Ⓒ Ⓓ

2   Ⓐ Ⓑ Ⓒ Ⓓ   5   Ⓐ Ⓑ Ⓒ Ⓓ

3   Ⓐ Ⓑ Ⓒ Ⓓ   6   Ⓐ Ⓑ Ⓒ Ⓓ

Answers to Sample Questions

This passage discusses the roles of women who served as foreign correspondents for Latin America.

Sample Question 1:

This item asks you to choose the sentence that best states the main purpose of the passage. Choice **(C)** is the best answer because the passage focuses on how women became successful foreign correspondents. Choices (A) and (B) are incorrect because the passage does not include information about the women's movement or living conditions in Latin America. Choice (D) is incorrect because Georgie Anne Geyer's career is not compared to the careers of other correspondents.

Sample Question 2:

This item asks you to identify which answer is not implied in lines 1–8. The correct answer is choice **(A)**, because editors actually considered Latin America "'safely' close to home." Answer choices (B) and (C) are both implied by the passage, and (D) is as well, since if female journalists "insisted" on being foreign correspondents, it is implied that editors tried to dissuade them from doing so.

Sample Question 3:

This item asks you to determine which answer is a reason given in the first paragraph for sending female journalists to Latin America. Answer choice **(A)** is correct because lines 4–5 state that "Latin America was considered 'safely' close to home." Answer choices (B) and (D) contain information not stated in the passage. While (C) is true, it is not presented as a reason why female journalists were sent to Latin America, but rather as a consequence of their having been sent.

Sample Question 4:

This item asks you to determine which answer is implied by information in the first sentence. Choice **(D)** is the correct answer because the sentence implies Nellie Bly was one of the first "women who insisted on being foreign correspondents." Answer choices (A), (B), and (C) are incorrect because they are not conclusions that can be drawn from the first sentence.

Sample Question 5:

This item asks you to identify the cause of the rise in Shirley Christian's reputation. The correct answer is choice **(C)**, because the passage states that her reputation "soared" after stories about Latin America reached page one of newspapers, implying that the region had become more interesting to the public. Answer choices (A) and (C) are incorrect because it was Geyer, not Christian, who branched out to cover the whole world and became a television panelist. Choice (B) is incorrect because the passage does not imply that Christian's reputation was due to being a female foreign correspondent or that female foreign correspondents were particularly rare.

Sample Question 6:

This item asks you to determine the purpose of the quote. The correct answer is **(C)**, because the focus of the quote is on three different problems female journalists have faced. Choices (A), (B), and (D) are not supported by the passage.

Mathematics Achievement
(Section 4)

Mathematics Achievement tests mathematical skills you have learned from the very beginning of your school career. All questions in this section are aligned to the standards articulated by the NCTM. As with the questions in the Quantitative Reasoning section, this section will include questions from these NCTM standards:

- Number and Operations
- Algebra
- Geometry
- Measurement
- Data Analysis and Probability, and
- Problem Solving

For more information on these mathematical standards, visit www.nctm.org.

The Mathematics Achievement section will test your ability to identify and solve problems related to the NCTM standards in the six areas listed above. Specifically, the Mathematic Achievement questions have these characteristics:

- Unlike the Quantitative Reasoning section, you may need to do calculations to determine the correct answer for some questions.
- Answer choices may represent misconceptions or procedural errors (such as incorrect order of mathematical operations in a multi-step problem) but there are no trick questions or trick answers.
- Unlike the Quantitative Reasoning section, some items may require knowledge of mathematical terminology as indicated in the grade appropriate NCTM standards.
- Although conversions between units of measurement may be required to correctly answer the problem, s*tudents do not have to memorize conversions in the U.S. standard system (such as twelve inches equals one foot).* If conversions within the U.S. standard system are required to find the correct answer to the question, they are given in the question.
- Common metric units will be found in some questions in this section, but conversions within the same unit for volume, length, mass or temperature in the metric system are not provided. (i.e., conversions between centimeters and meters).

You may not use a calculator or scratch paper. You may write in this book, since you may write in the test booklet when you take the ISEE.

Strategies:

- Read the entire question and study any related graphic images for each question before looking at the answer choices.
- Remember all four answer choices are logical answers—there are no answer choices such as "all of the above" or "none of the above."
- Next determine your answer and look for it in the answer choices provided.
  - *To save you time, all answers are listed in sequential order from greatest to least, or least to greatest, **unless the answer could be determined by using the ordered answers**. (For example, a question which asks which number is the largest number would not have its answer choices ordered by value.)*
- Remember to check your work, since often the answer choices represent common mathematical mistakes or procedural misconceptions.
- Some questions may be unfamiliar to you because you may not have yet covered that particular math concept at your current school. If you do not know the answer to the question, or if the answer you have determined is not listed as an answer choice, you may choose to make a mark in your test booklet (not your answer document), skip that question for now, and move on to the next question. *Remember all questions on the ISEE have equal value.* If you have time before the end of this test section, you may be able to come back to it later.

Numbers and Operations

Students should be able to

- classify, perform operations on, make reasonable estimates of, and compare whole numbers, integers, rational numbers, irrational numbers, real numbers and complex numbers; and
- perform operations on matrices and vectors, and compute combinations and permutations.

Sample Questions

Directions: Answer the following sample questions. Darken the circle for your answer choice in the sample answer sheet at the bottom of the page. After you finish answering the questions, turn to the next page and evaluate your answers.

1. What is the value of the numerical expression $\dfrac{3.2 \times 10^5}{4.0 \times 10^{-2}}$?

   (A) 8.0×10^7
   (B) 8.0×10^6
   (C) 8.0×10^3
   (D) 8.0×10^2

2. The price of tomatoes increased from $1.20 per pound to $1.50 per pound. What was the percent increase in the price of tomatoes?

   (A) 15%
   (B) 20%
   (C) 25%
   (D) 30%

Sample Answer Sheet: Darken the correct answer for each item.

1 Ⓐ Ⓑ Ⓒ Ⓓ

2 Ⓐ Ⓑ Ⓒ Ⓓ

Answers to Sample Questions

Sample Question 1:

The correct answer is answer choice **(B), 8.0×10^6**.

One way the answer can be found is by writing out the values in standard form:

$$\frac{320,000}{0.04} = \frac{32,000,000}{4} = 8,000,000 = 8.0 \times 10^6.$$

Sample Question 2:

The correct answer to the question is answer choice **(C), 25%**.

$$1.50 - 1.20 = 0.30; \quad \frac{0.30}{1.20} = \frac{1}{4} \text{ or } 25\% \,.$$

Algebraic Concepts

Students should be able to

- understand relations and functions when presented as symbolic equations, graphs, and tables;
- model real-world situations using symbolic equations and graphs; and
- use symbolic manipulation to determine equivalent expressions, equations, and inequalities.

Sample Questions

<u>Directions</u>: Answer the following sample questions. Select the answer that most clearly illustrates the concepts asked for. Darken the circle for your answer choice in the sample answer sheet at the bottom of the page. After you finish answering the questions, turn to the next page and evaluate your answers.

1. What is the solution set to the inequality $5 \leq -2x + 1 \leq 9$?

    (A) $2 \leq x \leq 4$
    (B) $-4 \leq x \leq -2$
    (C) $x \leq 4, x \geq 2$
    (D) $x \leq -4, x \geq -2$

2. The first five terms of an arithmetic sequence of numbers are shown.

    $$-3, 2, 7, 12, 17$$

    Which expression represents the *n*th term of this sequence?

    (A) $n - 3$
    (B) $n + 5$
    (C) $5n - 2$
    (D) $5n - 8$

Sample Answer Sheet: Darken the correct answer for each item.

1 Ⓐ Ⓑ Ⓒ Ⓓ

2 Ⓐ Ⓑ Ⓒ Ⓓ

Answers to Sample Questions

Sample Question 1:

The correct answer to the question is answer choice **(B), – 4 ≤ *x* ≤ –2**.

One way the answer can be found is by

- subtracting 1 from each part of the inequality, giving $4 \leq -2x \leq 8$;

- dividing by –2, giving $-2 \geq x \geq -4$, or written in standard form $-4 \leq x \leq -2$.

Sample Question 2:

The correct answer to the question is answer choice **(D), 5*n* – 8**.

One way the answer can be found is by noticing that the values increase by 5 each time, so the sequence is linear with a slope of 5, or is in the form

   $5n + b,$

for some number *b*. The first term of the sequence is –3, so

   $-3 = 5(1) + b,$ and

   $b = -8.$

The expression representing the *n*th term of the sequence is $5n - 8$.

Geometry

Students should be able to
• classify and describe basic 2- and 3-dimensional figures;
• understand and use coordinate grids, including transformation of geometric figures; and
• understand the concepts of congruency, symmetry, and similarity.

Sample Question

<u>Directions</u>: Answer the following sample question. Select the answer that best illustrates geometric operations. Darken the circle for your answer choice in the sample answer sheet at the bottom of the page. After you finish answering the question, turn to the next page and evaluate your answer.

1. Triangle *RST* is similar to triangle *XYZ*. The length of $\overline{RS}$ is 3 cm, and the length of $\overline{XY}$ is 2 cm. If the length of $\overline{ST}$ is 9 cm, what is the length of $\overline{YZ}$?

    (A)   3 cm
    (B)   6 cm
    (C)   8 cm
    (D) 10 cm

Sample Answer Sheet: Darken the correct answer for this item.

1   (A) (B) (C) (D)

Answer to Sample Question

The correct answer to the question is answer choice **(B), 6 cm**.

One way the answer can be found is by solving the equation

$$\frac{2}{3} = \frac{x}{9}, \text{ or}$$

$$x = \frac{18}{3} = 6 \text{ cm.}$$

Measurement

Students should be able to

- understand and use formulas for the area, surface area, and volume of geometric figures, including cones, spheres, and cylinders; and
- make decisions about units and scales that are appropriate for problem situations involving measurement.

Sample Question

Directions: Answer the following sample question. Select the answer that best illustrates measurement abilities. Darken the circle for your answer choice in the sample answer sheet at the bottom of the page. After you finish answering the question, turn to the next page and evaluate your answer.

1. There are 5,280 feet in a mile. If John were running at a rate of 8 miles per hour, the value of which numerical expression is his speed in feet per second?

   (A) $\dfrac{8 \times 5,280}{60 \times 60}$

   (B) $\dfrac{8 \times 60 \times 60}{5,280}$

   (C) $\dfrac{60 \times 60}{8 \times 5,280}$

   (D) $\dfrac{8 \times 60}{5,280 \times 60}$

Sample Answer Sheet: Darken the correct answer for this item.

1   Ⓐ Ⓑ Ⓒ Ⓓ

Answer to Sample Question

The correct answer to the question is answer choice **(A),** $\dfrac{\mathbf{8 \times 5,280}}{\mathbf{60 \times 60}}$.

One way the answer can be found is by using unit analysis:

$$8 \,\frac{\text{miles}}{\text{hour}} \times \frac{5{,}280 \text{ feet}}{1 \text{ mile}} \times \frac{1 \text{ hour}}{60 \text{ minutes}} \times \frac{1 \text{ minute}}{60 \text{ seconds}} .$$

Data Analysis and Probability

Students should be able to

- collect, display; interpret, and make predictions about a set of data;
- calculate mean, mode, median, range, standard deviation, and first and third quartiles of a set of data; and
- calculate probabilities and expected values.

Sample Questions

<u>Directions</u>: Answer the following sample questions. Select the answer that best illustrates data analysis and probability. Darken the circle for your answer choice in the sample answer sheet at the bottom of the page. After you finish answering the questions, turn to the next page and evaluate your answers.

1. The table shows the results of a survey of 60 students. Each student was asked about his or her favorite sport.

FAVORITE SPORTS

Sport	Number of Students
football	20
baseball	18
basketball	10
other	12

A circle graph is made using the data. What is the central angle of the portion of the graph representing basketball?

(A)   10°
(B)   20°
(C)   60°
(D)   120°

2. Marcia rolls a 6-faced cube 2 times. Each face of the cube is colored: 2 of the faces are red, 3 of the faces are blue, and 1 face is green. What is the probability that the first roll resulted in a red face and the second roll resulted in a blue face?

(A)   17%
(B)   33%
(C)   34%
(D)   50%

Sample Answer Sheet: Darken the correct answer for each item.

1   Ⓐ Ⓑ Ⓒ Ⓓ

2   Ⓐ Ⓑ Ⓒ Ⓓ

Answers to Sample Questions

Sample Question 1:

The correct answer to the question is answer choice **(C), 60°**.

One way the answer can be found is

$$360° \times \frac{10}{60}.$$

Sample Question 2:

The correct answer to the question is answer choice **(A), 17%**.

One way the answer can be found is by recognizing that this is a compound probability question that requires multiplication:

$$\frac{2}{6} \times \frac{3}{6} = \frac{1}{6} \approx 0.17 \text{ or } 17\%.$$

Writing the Essay
(Section 5)

On the last section of the ISEE test, you will be asked to write a short essay in response to an assigned writing prompt. A writing prompt is randomly selected for use on each test date. The writing prompts include topics of interest to students at your level and are created to give you an opportunity to tell more about yourself.

This part of the test also gives you a chance to show the schools to which you have applied how well you organize your thoughts and express them in a written format. For the actual ISEE test, you are given a sheet of paper on which to make notes. You must write the essay in ink on two pre-lined pages (erasable ink is allowed), and you also must rewrite the prompt at the top of the first page. The actual instructions you will receive when you take the essay portion of the ISEE are shown on pages 110–111 in the "Practice Test" section.

You are given 30 minutes to complete the essay. During those 30 minutes you should

- organize your thoughts;
- prepare your notes or make a short outline; and
- write your final copy.

Writing must be done either in cursive or print using a ballpoint pen. The writing should be done directly on the lines preprinted in the answer document, using blue or black ink.

On the following pages, you will find some tips for writing an essay, some sample essay prompts, and lined pages for writing a sample essay. Three sample essay topics and three sets of lined pages have been provided to give you an opportunity to practice on more than one prompt. Remember to add descriptions and details in your response. If possible, you should ask a parent or teacher to read your essay(s) and give you feedback on what you have written.

Tips for Writing the Essay

Here is a brief writing checklist designed to help you organize and write in response to the essay topic provided. This checklist is for your use now, but note that there is NO checklist for you to use when you take the actual ISEE, and you may NOT take a checklist into the test with you. We believe, however, that if you use this checklist as you write your sample essay, you will remember to ask yourself these questions when you write your essay on the actual ISEE.

    __ Did I put the topic in the box at the top of the first page, as instructed?

    __ Did I plan my essay before putting it on the lined sheets?

    __ Did I allow enough time to write my final copy on the lined sheets?

    __ Did I write about the topic that was given?

    __ Did I include details to add interest?

    __ Did I follow rules for grammar, spelling, punctuation, and capitalization?

    __ Can others read my handwriting?

    __ Did I review my writing upon finishing?

Sample Essay Topics

<u>Directions</u>: Select a topic from the list of sample topics below and write an essay on the pre-lined pages on pages 59 and 60. You may plan your essay on a separate sheet of paper. Remember to rewrite the topic at the top of page 59.

If you would like additional practice writing an essay, pages 61–64 contain pre-lined pages for writing essays on the remaining topics.

Topic 1: Of the books you have read in the past year, which one made the biggest impression on you and why?

Topic 2: Your school requires you to perform forty hours of community service in order to graduate. Describe which type of community service you would choose and explain your choice.

Topic 3: Describe what you would consider a "really successful person." Explain why you consider this person and this person's qualities to be successful.

This page is intentionally left blank.

Sample Essay #1

STUDENT NAME _____ GRADE APPLYING FOR _____

Use blue or black ink to write the final draft of your essay on this sheet.

You must write your essay topic in this space.

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Use specific details and examples in your response.

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Sample Essay #2

STUDENT NAME _____ GRADE APPLYING FOR _____

Use blue or black ink to write the final draft of your essay on this sheet.

You must write your essay topic in this space.

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Use specific details and examples in your response.

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Sample Essay #3

STUDENT NAME _____ GRADE APPLYING FOR _____

Use blue or black ink to write the final draft of your essay on this sheet.

You must write your essay topic in this space.

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Use specific details and examples in your response.

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Practice Test

ISEE®

Upper Level

Using the Practice Test

The Practice Test is the same format as the actual ISEE. In each section, the number of questions and the number of minutes that you have to answer the questions are listed under the name of the section. On the actual ISEE, however, there are additional questions which will not be included on your score report, but which may be used on future tests. Thus, the timings for the Practice Test are slightly shorter than on the actual ISEE, since you are answering only questions that will be used to determine your sample score. The chart below shows the number of questions on each section of the Practice Test and the actual ISEE, and how many minutes you should allow for each section of both tests.

PRACTICE TEST AND ACTUAL TEST—UPPER LEVEL

Sections	Practice Test	Actual ISEE
Verbal Reasoning	35 Questions—17.5 Minutes	40 Questions—20 Minutes
Quantitative Reasoning	32 Questions—30 Minutes	37 Questions—35 Minutes
Reading Comprehension	30 Questions—30 Minutes	36 Questions—35 Minutes
Mathematics Achievement	42 Questions—36 Minutes	47 Questions—40 Minutes
Essay	2-Page Limit—30 Minutes	2-Page Limit—30 Minutes

Although the timings are not the same on the Practice Test and the actual ISEE, since each section on the actual test is carefully timed, it is important to follow the timing instructions on the Practice Test so you can learn how to pace yourself for the actual test.

Remember that the time it takes to read the brief directions at the beginning of each section is NOT included in the testing time. When you take the actual test, you will be allowed a five- to ten-minute break before the Reading Comprehension section and another five- to ten-minute break following the Mathematics Achievement section. On the actual ISEE, you will take each section in the same order in which it appears in this Practice Test. Each section must be taken without stopping; therefore, we strongly encourage you to take the Practice Test exactly the same way so that the experience will be realistic and meaningful. Also, the score you calculate when you check your answers will be more accurate.

Because we think it will help you to know exactly how the test administrator will instruct you on the day of the test, we have included the general directions that will be read to you before the test starts. (These directions are on the next page.) Reading these directions carefully will help you know what to expect.

When you are ready to begin, try to create the following realistic test conditions.
- Find a quiet, well-lighted space with an appropriate writing surface.
- Ask an older person (parent, sibling, friend) to act as test administrator to
  - read the general directions;
  - monitor your time;
  - write down the starting time for each section;
  - tell you when 5 minutes remain in each section; and
  - tell you when to stop.

You will use a copy of the actual answer sheet to mark your answers for the Practice Test. The answer sheet is in Appendix B. You will also use the pre-lined pages in Appendix B for your essay. Use the appropriate parts of the answer sheet and leave the remaining parts blank. For example, leave "Test Administrator" and "ID Number" blank. It may be more convenient for you to photocopy the answer sheet so that you don't have to turn back and forth between the Practice Test and Appendix B.

Test Directions

After you are seated in the test room and the test administrator announces that you are ready to begin, he or she will give you your test booklet and an answer sheet. (Please refer to the answer sheet on pages 139–142). Some of the information on this answer sheet may already be filled in for you, but if not, the test administrator will help you. After you complete the test booklet itself, the administrator will give you your essay topic to write on the last two pages of the answer sheet. There will be two five- to ten-minute breaks during the test.

The general directions the test administrator will read to you before you begin the separate sections of the actual ISEE are below. The administrator will not begin timing you until after he or she has finished reading them and answering any appropriate questions. These are the same directions you should use on the Practice Test. It is important to look at them now because they contain important information.

Directions

The ISEE measures skills and abilities commonly used by students in school. Your test booklet contains four sections: Verbal Reasoning; Quantitative Reasoning; Reading Comprehension; and Mathematics Achievement. There are several different versions for each test, so the questions in your test booklet will probably be different from the questions that others in this room are answering. Because these tests are given to students in more than one grade, don't be surprised if you notice that some of the questions are very easy for you, or that others are very difficult.

Read the directions and samples printed at the beginning of each test carefully. Work as quickly as you can without becoming careless. Do not spend too much time on any question that is difficult for you to answer since all questions are scored equally. Instead, skip it and answer all of the questions that you can. Then, if you have time, return to any questions you may have skipped.

Please select the best choice for each question. On this test, there is no penalty for an incorrect answer.

Be sure to record all your answers on the answer sheet. Mark only one answer for each question, and make every mark heavy and dark, as in these examples.

Sample Answers

● Ⓑ Ⓒ Ⓓ
Ⓐ Ⓑ ● Ⓓ

If you decide to change one of your answers, be sure to erase the first mark completely. Don't worry if you find that there are more answer spaces on the answer sheet than there are questions in this booklet. As you work, make sure that the number of the question that you are answering matches the number on the answer sheet section that you are marking.

Please do not open the booklet until you are told to do so.

ISEE®

Verbal Reasoning

UPPER LEVEL

Practice Test

VR

Section 1
Verbal Reasoning

35 Questions	Time: 17.5 minutes

This section is divided into two parts that contain two different types of questions. As soon as you have completed Part One, answer the questions in Part Two. You may write in your test booklet. For each answer you select, fill in the corresponding circle on your answer document.

Part One — Synonyms

Each question in Part One consists of a word in capital letters followed by four answer choices. Select the one word that is most nearly the same in meaning as the word in capital letters.

SAMPLE QUESTION: Sample Answer

   DISPERSE: Ⓐ Ⓑ ● Ⓓ

   (A) conceal
   (B) excuse
   (C) scatter
   (D) translate

Part Two — Sentence Completion

Each question in Part Two is made up of a sentence with one or two blanks. One blank indicates that one word is missing. Two blanks indicate that two words are missing. Each sentence is followed by four answer choices. Select the one word or pair of words that best completes the meaning of the sentence as a whole.

SAMPLE QUESTIONS: Sample Answers

Never -------, the dishes Martha prepared were   ● Ⓑ Ⓒ Ⓓ
always highly seasoned.

   (A) bland
   (B) durable
   (C) plentiful
   (D) spicy

When the young politician took office, she was -------,   Ⓐ Ⓑ Ⓒ ●
but she felt ------- by the time her first term ended.

   (A) disappointed . . . confused
   (B) energetic . . . excited
   (C) indifferent . . . idealistic
   (D) inexperienced . . . knowledgeable

**STOP. Do not go on
until told to do so.**

STOP

Part One—Synonyms

Directions: Select the word that is most nearly the same in meaning as the word in capital letters.

1. INITIAL:

   (A) first
   (B) mutual
   (C) orderly
   (D) proper

2. MANNEQUIN:

   (A) actor
   (B) aide
   (C) leader
   (D) model

3. AGENDA:

   (A) accident
   (B) composition
   (C) duty
   (D) program

4. ADVERSARY:

   (A) agent
   (B) coward
   (C) opponent
   (D) rascal

5. PERSONIFY:

   (A) argue
   (B) fulfill
   (C) replace
   (D) represent

6. EQUITY:

   (A) fairness
   (B) harshness
   (C) humor
   (D) knowledge

7. ANTHOLOGY:

   (A) agreement
   (B) collection
   (C) disease
   (D) extension

8. OPAQUE:

   (A) antique
   (B) clouded
   (C) exhausted
   (D) pretentious

9. PALPABLE:

   (A) docile
   (B) political
   (C) sluggish
   (D) tangible

10. FATHOM:

   (A) comprehend
   (B) hasten
   (C) question
   (D) trick

11. DIMINISH:

    (A) eliminate
    (B) evade
    (C) examine
    (D) reduce

12. PERPETUATE:

    (A) continue
    (B) convince
    (C) enclose
    (D) introduce

13. ADMONISH:

    (A) delay
    (B) organize
    (C) suffer
    (D) warn

14. DEPICT:

    (A) describe
    (B) discard
    (C) include
    (D) reverse

15. EPITOME:

    (A) embodiment
    (B) equilibrium
    (C) resilience
    (D) viewpoint

16. TRANSITORY:

    (A) active
    (B) essential
    (C) fleeting
    (D) immediate

17. INCITE:

    (A) explain
    (B) investigate
    (C) provoke
    (D) request

Part Two—Sentence Completion

Directions: Select the word or word pair that best completes the sentence.

18. Poet-novelist Rita Dove, former United States Poet Laureate, was the ------- of the 1966 Heinz Award in the category of arts and humanities.

    (A) contractor
    (B) hero
    (C) mentor
    (D) recipient

19. Alfred Jarry's first play, *Ubu Roi*, is considered the first work of the theater of the absurd; although it caused a scandal when it opened in 1896, today it is ------- for its innovative plot.

    (A) acclaimed
    (B) inspected
    (C) rejected
    (D) suspected

20. Many people raise their voices in an argument, as though higher volume ------- a greater ability to persuade.

    (A) balances
    (B) necessitates
    (C) provides
    (D) recognizes

21. In the second half of the nineteenth century, the number of American bison, which were once -------, began to decline as the bison became a source of food for westward-moving pioneers and railroad workers.

    (A) abundant
    (B) limited
    (C) unpopular
    (D) vibrant

22. Unlike other great apes, which are social, orangutans are ------- creatures except for playful juveniles and mothers with babies.

    (A) contented
    (B) friendly
    (C) mysterious
    (D) solitary

23. The article on gene splicing was so ------- that only a handful of the students were able to understand it.

    (A) contrite
    (B) esoteric
    (C) functional
    (D) genuine

Go on to the next page. ➡

24. The first African American actor to attain international ------- was Ira Aldridge, one of the leading Shakespearean performers of the 1800s.

    (A) permanence
    (B) provocation
    (C) rejection
    (D) renown

25. Ancient cave paintings of the sun, the moon, and wild animals ------- to the inherent human desire and ability to portray the environment.

    (A) cater
    (B) graduate
    (C) react
    (D) testify

26. Each afternoon the shepherd would drive his flock along the narrow road, effectively ------- the way for an hour.

    (A) obstructing
    (B) plundering
    (C) renouncing
    (D) transplanting

27. The city council looked at the proposal for a new library with an indifference that bordered on -------.

    (A) contemplation
    (B) hilarity
    (C) scornfulness
    (D) veneration

28. The art of Frida Kahlo was strongly ------- by her lifelong interest in and ------- with Mexican folklore and culture.

    (A) absorbed . . . irritation
    (B) influenced . . . fascination
    (C) repelled . . . agreement
    (D) undermined . . . unhappiness

29. Like most other ------- medical conditions, arthritis is not curable; physicians do their best, however, to ------- its symptoms.

    (A) chronic . . . ameliorate
    (B) complicated . . . mimic
    (C) imaginary . . . minimize
    (D) temporary . . . extend

30. Although much of the worst pollution has been ------- in the United States, traces of many toxic chemicals still -------.

    (A) discussed . . . escape
    (B) eliminated . . . persist
    (C) exaggerated . . . remain
    (D) foreseen . . . arise

31. Queen Victoria had mixed opinions on the emancipation of women: while she ------- education for women, she ------- their right to vote.

    (A) condemned . . . hindered
    (B) encouraged . . . recognized
    (C) fostered . . . opposed
    (D) founded . . . emphasized

Go on to the next page. ➡

32. The ------- observer of a lichen growing on a rock would never suspect that it was a ------- of life-forms interacting with one another.

(A) casual . . . composite
(B) expert . . . laboratory
(C) inquiring . . . barrier
(D) knowledgeable . . . relative

33. If the authors had written with more ------- and avoided such ------- language, their articles would have had more power.

(A) brilliance . . . intelligent
(B) deliberation . . . careful
(C) excess . . . emotional
(D) restraint . . . sentimental

34. Despite the ------- I felt at the thought of meeting Luisa, our business was transacted in an atmosphere that was clearly -------.

(A) apprehension . . . congenial
(B) excitement . . . jubilant
(C) optimism . . . exhilarating
(D) reservations . . . antagonistic

35. Because the caretaker had led a ------- lifestyle for most of his life, his million dollar ------- to the settlement house amazed the trustees.

(A) frugal . . . bequest
(B) generous . . . legacy
(C) lavish . . . generosity
(D) unique . . . entreaty

ISEE®

Quantitative Reasoning

UPPER LEVEL

Practice Test

Section 2
Quantitative Reasoning

| 32 Questions | Time: 30 minutes |

This section is divided into two parts that contain two different types of questions. As soon as you have completed Part One, answer the questions in Part Two. You may write in your test booklet. For each answer you select, remember to fill in the corresponding circle on your answer document.

Any figures that accompany the questions in this section may be assumed to be drawn as accurately as possible EXCEPT when it is stated that a particular figure is not drawn to scale. Letters such as x, y, and n stand for real numbers.

Part One — Word Problems

Each question in Part One consists of a word problem followed by four answer choices. You may write in your test booklet; however, you may be able to solve many of these problems in your head. Next, look at the four answer choices given and select the best answer.

EXAMPLE 1:   Sample Answer

What is the value of the expression $2 \times (3 + 4) \div (2 + 5)$?   Ⓐ ● Ⓒ Ⓓ

(A)   0
(B)   2
(C)   7
(D)   14

The correct answer is 2, so circle B is darkened.

Go on to the next page. ➡

QR

Part Two — Quantitative Comparisons

All questions in Part Two are quantitative comparisons between the quantities shown in Column A and Column B. Using the information given in each question, compare the quantity in Column A to the quantity in Column B, and choose one of these four answer choices:

    (A)   The quantity in Column A is greater.
    (B)   The quantity in Column B is greater.
    (C)   The two quantities are equal.
    (D)   The relationship cannot be determined from the information given.

EXAMPLE 2:	Column A	Column B	Sample Answer
	50% of 80	40% of 100	Ⓐ Ⓑ ● Ⓓ

The quantity in <u>Column A</u> (40) is the same as the quantity in <u>Column B</u> (40), so circle C is darkened.

EXAMPLE 3:		x is any real number	
	Column A	Column B	Sample Answer
	x	$-x$	Ⓐ Ⓑ Ⓒ ●

Since x can be any real number (including 0 or negative numbers), there is not enough information given to determine the relationship, so circle D is darkened.

STOP. Do not go on until told to do so.

STOP

Part One—Word Problems

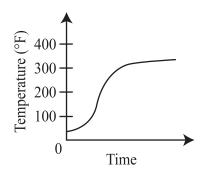**Directions:** Choose the best answer from the four choices given.

1. If $n* = 4n + 3$, what is the value of $8*$?

   (A) 35
   (B) 40
   (C) 44
   (D) 46

2. If $x - y = 3$, then which expression is equal to y?

   (A) $x + 3$
   (B) $x - 3$
   (C) $-x + 3$
   (D) $-x - 3$

3. If the sum of all integers from 1 to 1,000, inclusive, is x, then which expression represents the sum of all integers from 1 to 998, inclusive?

   (A) $x - 1,999$
   (B) $x - 999$
   (C) $x + 999$
   (D) $x + 1,999$

4. If the length of the base of a triangle is increased by 10 percent and the height is decreased by 20 percent, what is the percent decrease in the area of the triangle?
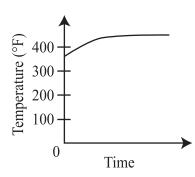
   (A) 6%
   (B) 8%
   (C) 10%
   (D) 12%

5. If m is a positive integer and $(x + 7)^2 = x^2 + mx + 49$, what is the value of m?

   (A) 7
   (B) 14
   (C) 28
   (D) 49

6. Joshua was trying to calculate the mean of his test scores. He did not know what he had scored on each of the first 4 tests but knew that the sum of his scores was 370. If Joshua scored an 85 on his fifth test, then what was the mean of all 5 scores?

   (A) 85.00
   (B) 88.75
   (C) 91.00
   (D) 92.50

7. A rectangle has an area of 110 inches^2. If the length and the width of the rectangle are measured in whole inches, what is the least possible perimeter of the rectangle?

   (A) 21 inches
   (B) 27 inches
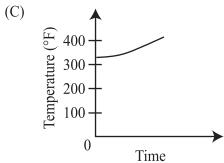   (C) 42 inches
   (D) 54 inches

8. A cool potato is placed in a hot (350°F) oven to cook for one hour. Which graph best represents what happens to the temperature of the potato as it cooks during the hour?
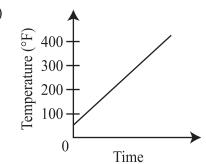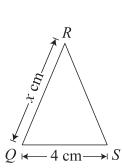
(A)

(B)

(C)

(D)

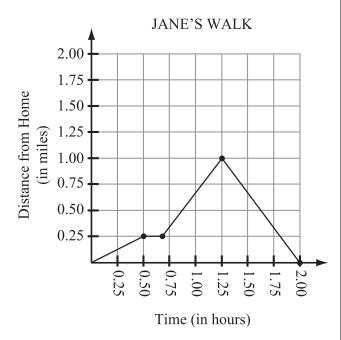9. Triangle *QRS* is similar to triangle *TUV*.

What is the length of side *TV*?

(A)   4 cm
(B)   6 cm
(C)   4x cm
(D)   6x cm

10. What is the value of the expression

$$\frac{3\left(3^2+3^3\right)}{9\left(3+9\right)}?$$

   (A) 0
   (B) 1
   (C) 3
   (D) 9

11. The graph shows the distance Jane was from home as a function of time during a walk.

JANE'S WALK

At one point in the walk, Jane stopped for several minutes and waited for her friend. How far was Jane from her home when she stopped and waited for her friend?

   (A) 0.25 miles
   (B) 0.50 miles
   (C) 0.75 miles
   (D) 1.00 mile

12. Mrs. Garrett graded the tests of her 20 students. She then calculated the mean, median, mode, and range for the test scores. The table gives the value of each of these statistical measures.

STATISTICAL MEASURES

Measure	Value
Mean	75
Median	80
Mode	80
Range	64
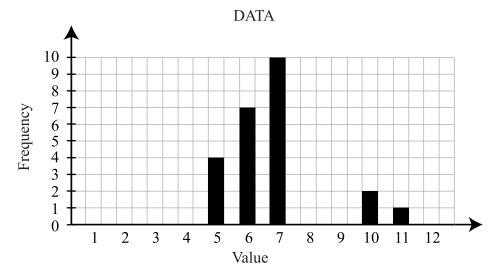
Mrs. Garrett decided to add 6 points to each of her student's test scores, and then she recalculated the values of each statistical measure. Which of the measures changed the least?

   (A) mean
   (B) median
   (C) mode
   (D) range

13. Jim and Maud are playing a game using number cubes. Each player rolls two number cubes, numbered 1 through 6, and the sum of the numbers is recorded.

   • Jim receives a point if his sum is a 6.
   • Maud receives a point if her sum is either 6 or 4.

Who has a greater probability of receiving a point?

   (A) Jim
   (B) Maud
   (C) Jim and Maud have the same probability of receiving a point.
   (D) There is not enough information given to determine the answer.

Go on to the next page. ➡

14. A scientist collects data. He determines both the mean of the data and the median of the data are equal to 7 and the data are symmetric about this value. He starts to create the bar graph shown but does not finish the graph.

DATA

If the range of the data is 8 and the maximum value of the data is 11, then how many data points fall above the value 7?

(A)   3
(B)   10
(C)   11
(D)   14

---

15. What is the maximum value for y, if $y = 2x^2 + 1$ for $-2 \leq x \leq 1$?

(A)   1
(B)   3
(C)   9
(D)   17

16. If $f(x) = \sqrt{x}$ and $g(x) = x^2$, which inequality is true?

(A) $f(0.9) < f(1.1) < g(0.9) < g(1.1)$
(B) $g(0.9) < f(0.9) < f(1.1) < g(1.1)$
(C) $f(0.9) < g(0.9) < f(1.1) < g(1.1)$
(D) $g(0.9) < f(1.1) < f(0.9) < g(1.1)$
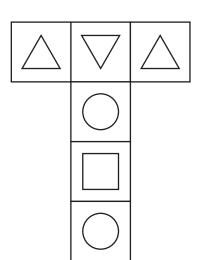
17. John and Erin were both jogging on the same path, each at a constant speed, and Erin at a faster speed than John. When Erin started jogging, John had jogged 500 meters. Which one piece of additional information, in meters per minute, would be needed to determine how long, in minutes, Erin had been jogging when she caught up with John?

(A)   John's speed
(B)   Erin's speed
(C)   the sum of John's and Erin's speeds
(D)   the difference in John's and Erin's speeds

Go on to the next page. ➡

18. A cube is shown.

Which figure is a possible net for the cube?

(A)

(B)

(C)

(D)

Go on to the next page. ➡

Part Two—Quantitative Comparisons

Directions: Using the information given in each question, compare the quantity in Column A to the quantity in Column B. All questions in Part Two have these answer choices:

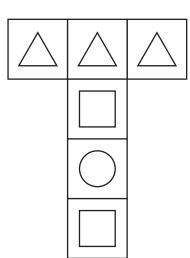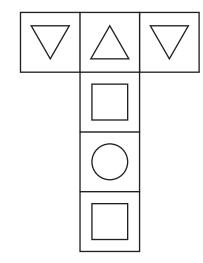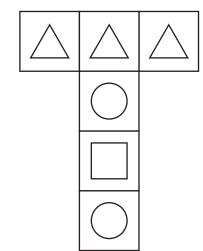(A)   The quantity in Column A is greater.
(B)   The quantity in Column B is greater.
(C)   The two quantities are equal.
(D)   The relationship cannot be determined from the information given.

Column A	Column B
19. $5 + 2 \times (4 + 3)$	19

Rectangle Q Rectangle R

2x   2y

Note: Figures not drawn to scale.

The area of Rectangle Q is 18 cm^2. The perimeter of Rectangle R is 30 cm.

Column A	Column B
20. x	y
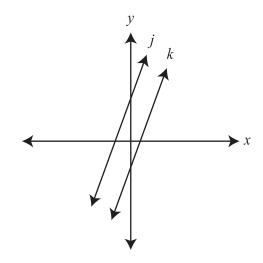
Column A	Column B
21. $(x - y)(x^2 + xy + y^2)$	$x^3 - y^3$

A parking meter filled with \$4.50 in dimes and quarters contains twice as many dimes as quarters.
(Note: 1 dime = \$.10; 1 quarter = \$.25)

Column A	Column B
22. The total value of the quarters	\$3.00

Line j is the graph of $y = 3x + 4$. Line j is parallel to line k.

Column A	Column B
23. The slope of line k	–3

Go on to the next page. ➡

Answer choices for all questions on this page:

(A) The quantity in Column A is greater.
(B) The quantity in Column B is greater.
(C) The two quantities are equal.
(D) The relationship cannot be determined from the information given.
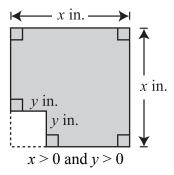
The perimeter of a rectangle is 50 inches.

Column A	Column B
24. The area of the rectangle	144 inches^2

$x > 0$ and $y > 0$

Note: Figure not drawn to scale.

Column A	Column B
25. Area of the shaded region	$x^2 - xy - y^2$ inches^2

The product of 3 consecutive integers is 210.

Column A	Column B
26. The greatest of the 3 consecutive integers	10

Column A	Column B
27. $25n - 1$	$25(n - 1)$

Square A

Rectangle B

Note: Figures not drawn to scale.

Coumn A	Column B
28. The perimeter of Square A	The perimeter of Rectangle B

A 6-sided number cube, numbered 1 to 6, is rolled and a coin is tossed.

Column A	Column B
29. If a number less than 3 is rolled on the cube, the probability of the coin landing tails up	If an odd number is rolled on the cube, the probability of the coin landing heads up
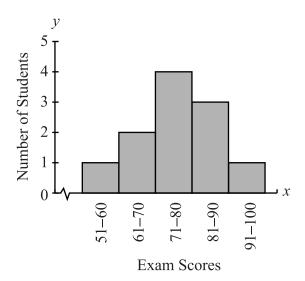
Go on to the next page. ➡

QR

Answer choices for all questions on this page:

(A) The quantity in Column A is greater.
(B) The quantity in Column B is greater.
(C) The two quantities are equal.
(D) The relationship cannot be determined from the information given.

Exam Scores

The histogram shows exam scores of students in a mathematics class.

Column A	Column B
30. The median score	The range of the scores

A jar contains 5 candies: 2 orange candies and 3 green candies. One candy is selected at random and replaced. Then a second candy is selected.

Column A	Column B
31. The probability that both candies selected are green	The probability that the first candy selected is green

In February, apples were selling for $1.50 a pound. In March, the price of apples was 10% higher than the February price. In April, the price of apples was 10% lower than the March price.

Column A	Column B
32. The price of apples in April	$1.50

ISEE®

Reading Comprehension

UPPER LEVEL

Practice Test

Section 3
Reading Comprehension

This section contains five short reading passages. Each passage is followed by six questions based on its content. Answer the questions following each passage on the basis of what is <u>stated</u> or <u>implied</u> in that passage. You may write in your test booklet.

STOP. Do not go on
until told to do so. STOP

87

Questions 1–6

1   When I was younger, I was extremely
2 interested in freshwater biology and spent most
3 of my time dredging about in ponds and
4 streams, catching minute creatures and keeping
5 them in large jars. Among other things, I had
6 one jar full of caddis larvae, which camouflage
7 themselves by decorating their cocoons. The
8 caddis I had collected looked rather dull, for I
9 had collected them from a stagnant pool. They
10 had merely decorated the outside of their
11 cocoons with little bits of dead water plants.
12   I had been told by my friend, however, that
13 if you remove a caddis larva from its cocoon
14 and place it in a jar of clean water, it would
15 spin itself a new cocoon and decorate the
16 outside with whatever materials you supplied.
17 Deciding to experiment, I removed four of my
18 caddis larvae from their cocoons. Then I placed
19 them in a jar of clean water and lined the
20 bottom with tiny seashells. Later, to my
21 astonishment, the larvae had intricately
22 decorated the new cocoons with seashells.
23   I discovered that by moving the larvae to a
24 different jar with a new substance, they would
25 produce new multicolored cocoons. My
26 greatest triumph lay in forcing them to decorate
27 their cocoons with fragments of blue glass, then
28 red brick, and white seashells. Moreover, the
29 materials were put on in stripes.
30   I never remember feeling quite the same
31 sort of satisfaction as I did when I showed off
32 my red, white, and blue caddis larvae to my
33 friends. I think the poor creatures were really
34 rather relieved when they hatched and flew
35 away and could forget about the problems of
36 cocoon building.

Go on to the next page. ➡

1. The primary purpose of the passage is to

   (A) explain the author's childhood interest in biology.
   (B) describe a discovery that excited the author's interest.
   (C) compare caddis larvae to other cocoon-building insects.
   (D) provide information about the life cycle of caddis larvae.

2. In line 4, "minute" most nearly means

   (A) timely.
   (B) timorous.
   (C) tiny.
   (D) tireless.

3. The author caused the larvae to decorate their cocoons with stripes by

   (A) mixing several different materials together in the same jar.
   (B) adding a new material to the jar during the cocoon-building process.
   (C) changing their environment at various stages of cocoon development.
   (D) changing the water in the jar frequently while they built their cocoons.

4. In line 8, the author describes the caddis larvae as "rather dull" because they

   (A) were still in the caterpillar stage.
   (B) were crowded together in one jar.
   (C) had been living in a stagnant pool.
   (D) were removed from the pool before they finished their cocoons.

5. In the final sentence (lines 33–36), the author suggests that the caddis larvae were

   (A) energized by all of their hard work.
   (B) annoyed by the author's experiments.
   (C) pleased by the attention they received.
   (D) perplexed by the author's interest in them.

6. What most probably led the author to experiment with caddis larvae?

   (A) a passage in a book about pond life
   (B) a conversation with the author's friend
   (C) a chance meeting with a famous naturalist
   (D) the author's pastime of collecting creatures from ponds and streams

Go on to the next page. ➡

Questions 7–12

1 Totem poles, the tallest wood carvings in the
2 world, are a trademark of the Northwest Coast
3 Indians. There are seven Indian nations up and
4 down the Northwest Coast, including Alaska,
5 and they each have their own style of carving.
6 Each pole is different, and each pole tells its
7 own story.
8 An elder taught the carver about ancestors,
9 crests, and symbols of the family before the
10 carver began to work. Design was left to the
11 carver. After splitting away the wood to give
12 form to the figures, the carver finished the final
13 details and shaping with curved knives. The
14 carver was also responsible for painting the
15 pole, although not all poles were painted. The
16 parts painted and the choice of colors depended
17 on the tradition of the area. In the 1800s, the
18 tallest poles were about sixty feet high, and
19 sometimes hundreds of people hauled on ropes
20 to raise a pole to its upright position.
21 The art of the totem pole carving almost
22 died out, with totem poles being felled, sold, or
23 even cut up for firewood. In the 1950s, the few
24 remaining carvers were hired by the University
25 of British Columbia Museum of Anthropology
26 to reproduce old and decaying Kwakiutl poles.
27 This project was largely responsible for bringing
28 the Northwest Coast Indian art back from the
29 brink of extinction.

7. Which best expresses the main idea of the passage?

   (A) Totem poles are making a comeback.
   (B) Totem poles are no longer an artistic achievement.
   (C) The art of totem pole carving almost died out.
   (D) Northwest Coast Indians are famous for large, beautiful totem poles.

8. The author implies that totem pole carving was

   (A) abandoned for a long period.
   (B) not a good way for a carver to make a living.
   (C) not a respected occupation among the Indians.
   (D) stopped because there were very few tall red cedars left.

9. Which best describes the organization of lines 8–17?

   (A) Different designs for totem poles are contrasted.
   (B) A process is described in chronological order.
   (C) An opinion is presented and then supported with facts.
   (D) The history of totem poles is traced from past to present.

10. According to the passage, which is true of totem poles?

    (A) They are nonexistent today.
    (B) They were once created only by the Kwakiutl.
    (C) They varied predictably from carver to carver.
    (D) They were carved by Northwest Coast Indian tribes.

11. The author of the passage appears to care most deeply about the fact that

    (A) each pole tells a different story.
    (B) some poles took over a year to make.
    (C) carvers painted some totem poles and not others.
    (D) the artistic heritage of Northwest Coast Indians was saved.

12. According to the passage, a museum helped preserve the art of totem pole carving by

    (A) preserving totem poles so that they would not decay.
    (B) commissioning carvers to duplicate existing totem poles.
    (C) selling the museum's collection of Indian art to the public.
    (D) encouraging carvers to create new and innovative designs.

Go on to the next page. ➡

Questions 13–18

The following passage was published in 1991.

1   The news media seem to be filled with
2 alarming editorials about how schools in the
3 United States may not be up to the challenge of
4 educating the workers needed in tomorrow's
5 world. In the world of tomorrow, according to
6 these self-styled pundits, laser technology,
7 robotics, and computer-controlled equipment
8 will be ubiquitous parts of our lives. Of
9 necessity, therefore, more students than ever
10 before will need advanced training or even
11 college degrees.
12   Some researchers, however, would argue
13 that these commentators overstate the case.
14 Two studies in particular have reached some
15 not-very-alarming conclusions about the
16 amount of education it will take to do the jobs
17 of the future. In the mid-1980s, a study by the
18 Hudson Institute concluded that, by the
19 beginning of the twenty-first century,
20 19 percent of newly created jobs could be
21 performed by high school dropouts and only
22 26 percent of newly created jobs would require
23 a college degree. (To put these projections into
24 perspective, approximately 17 percent of
25 today's high school students drop out—
26 although not necessarily permanently—while
27 some 26 percent go on to institutions of higher
28 education and obtain bachelor's degrees.

29 Slightly more than 50 percent of students get
30 their high school diploma and enter a program
31 of postsecondary education but drop out prior
32 to obtaining a bachelor's degree.) A more
33 recent study by the National Center on
34 Education and the Economy finds a more even
35 distribution, with 34 percent of new jobs
36 projected as requiring less than a high school
37 diploma, 36 percent requiring a high school
38 diploma and up to three years of college, and
39 30 percent requiring a college degree.
40   These studies, obviously, seem to portray a
41 future that is directly opposed to the visions
42 that more typically are found in the news
43 media. One possible explanation for the
44 discrepant conclusions coming from the two
45 camps lies in the possibility that the media have
46 confused rates of growth with actual numbers
47 of jobs. It is certainly the case that the
48 occupations that are projected to exhibit the
49 fastest growth over the next few decades are
50 frequently occupations that require advanced
51 educational degrees. However, what often goes
52 unstated and unrecognized is the reality that
53 such jobs are likely to represent no more than
54 5 percent of the jobs in the workforce as a
55 whole.

Go on to the next page. ➡

13. The primary purpose of the passage is to

    (A) suggest that reports expressing concern over the state of educational preparedness in the United States may be unnecessarily alarming.
    (B) demonstrate ways in which the workers of tomorrow will need far more sophisticated knowledge in the area of technology if they are to be successful.
    (C) illustrate several ways in which technology has altered the current job market and to describe the implications that such changes have for education in this country.
    (D) lament the growing percentage of high school students in the United States who drop out prior to graduation and are therefore unable to secure high-paying careers.

14. In line 6, "pundits" most nearly means

    (A) educators.
    (B) experts.
    (C) naysayers.
    (D) workers.

15. The author of the passage does all of the following EXCEPT

    (A) give data.
    (B) describe research.
    (C) compare trends in different countries.
    (D) cite commentators from the news media.

16. Which conclusion can best be drawn from the two studies summarized in the second paragraph (lines 12–39)?

    (A) By the beginning of the twenty-first century, a college degree will be virtually required if one hopes for a high-paying job.
    (B) The workforce being prepared by our schools today matches fairly closely the workforce likely to be needed by our society in the near future.
    (C) Our students face an uncertain economic future unless educators and the public band together to reduce the rate at which high school students drop out.
    (D) The majority of jobs at the beginning of the twenty-first century will require a knowledge of robotics, laser technology, or computer-assisted equipment.

17. The author's tone when discussing the news media is best described as

    (A) admiring.
    (B) critical.
    (C) humorous.
    (D) worried.

18. The purpose of the last paragraph (lines 40–55) is to

    (A) provide an explanation for the differing points of view.
    (B) express concern for the future welfare of the economy.
    (C) propose additional research needed to clarify the issues.
    (D) criticize the shortcomings of the arguments made by both sides.

Go on to the next page. ➡

Questions 19–24

Any discussion about domestic life during the medieval period in Europe must exclude an important group: it cannot refer to most of the population, who were poor. Writing about the decline of the Middle Ages, a prominent historian described a world of sharp contrasts, where health, wealth, and good fortune were enjoyed as much for their rarity as for their advantages. "We, at the present day, can hardly understand the keenness with which a warm coat, a good fire on the hearth, a soft bed . . . were formerly enjoyed." He also made the point that medieval popular art, which we appreciate for its simple beauty, was prized by its makers even more for its splendor and pomp. Its overdecorated sumptuousness was needed to make an impression on a public who sought escape from the wretched conditions under which they lived. The extravagant pageants and religious festivals that characterized that time can be understood not only as celebrations, but also as antidotes to the miseries of everyday life.

The poor were extremely badly housed, were without water, and had few possessions. Their dwellings were so small that family life was compromised; these tiny hovels were little more than shelters for sleeping. There was room only for the infants—the older children were separated from the parents and sent to work as apprentices or servants. The result of these deprivations was that concepts such as "home" and "family" did not exist for these souls.

By way of contrast, many town dwellers partook of medieval prosperity. The free town, which stood apart from the predominantly feudal countryside, was uniquely European. Its inhabitants—the *francs bourgeois* in France, the *burghers* in Germany, the *borghese* in Italy, and the burgesses in England—would create a new urban civilization. The word "bourgeois" first occurred in France in the early eleventh century. It described the merchants and tradespeople who lived in walled towns and governed themselves through elected councils and in most cases owed allegiance directly to the king instead of a lord. What places the bourgeois in the center of any discussion of domestic comfort is that unlike the aristocrat, who lived in a fortified castle, or the cleric, who lived in a monastery, or the serf, who lived in a hovel, the bourgeois lived in a house. Our examination of the concept of the home begins here.

19. The passage is primarily concerned with

    (A) praising the lives of the rich and the middle class during the Middle Ages.
    (B) explaining the importance that medieval art had for the bourgeois and the rich.
    (C) providing background information for a discussion of the medieval home and its comforts.
    (D) describing the differences between political views in towns and in the country during the Middle Ages.

20. According to the passage, medieval pageants and festivals for the poor were appealing because they

    (A) were free.
    (B) had religious importance.
    (C) provided an excuse for celebration.
    (D) provided relief from a hard, bleak existence.

21. The author suggests that we do not understand the "keenness" (line 10) of certain pleasures enjoyed by medieval people because we

    (A) seldom share our pleasures with others.
    (B) lack sufficient knowledge of the period.
    (C) lead lives that are too cluttered and busy.
    (D) enjoy the pleasures mentioned fairly frequently.

22. In the second paragraph (lines 24–34), the author states that the concept of "family" did not exist because

    (A) families had to move fairly frequently.
    (B) several families had to share one house.
    (C) everyone had to work hard in order to survive.
    (D) children were sent away as soon as they were old enough to work.

23. The author most likely uses similar terms from different languages (lines 38–42) in order to

    (A) inform the reader about the breadth of his research.
    (B) emphasize the widespread nature of a similar concept.
    (C) illustrate the subtle differences within a common idea.
    (D) suggest the common origin of many medieval languages.

24. The passage suggests that loyalty to a king rather than to a lord had which advantage?

    (A) lower taxes
    (B) less threat of death in battle
    (C) more potential for self-government
    (D) more mobility among social classes

Go on to the next page. ➡

Questions 25–30

In the passage below, architect Frank Lloyd Wright describes an incident from his youth that was to lead to a business partnership in later life.

1　September, long awaited, finally came.
2　Over the summer, I learned a lot on my uncle's
3　farm. My fingers were quick, and I could work
4　almost as hard as a man. I wasn't afraid of
5　anything—well, maybe a little afraid of storms
6　and of people. Buoyantly, I bounded up the
7　steps at home and flung my arms around
8　Mother. Turning to Jane and Maginel (my
9　sister and brother), I exclaimed, "How you've
10　grown."
11　　On the day I approached the forbidding
12　Second Ward School, I was less sure of myself.
13　Because I'd spent the summer on my uncle's
14　farm, I had no companions with whom to share
15　my foray into the unknown.
16　　On the playground a ruckus had erupted. In
17　the center of a circle of taunting boys was a pile
18　of leaves from which emerged the brawny
19　shoulders of a red-haired boy who spluttered
20　angrily. He was not at all intimidated.

21　　"What happened?" I asked.
22　　"Some boys decided to bury Robie Lamp in
23　leaves," another boy explained.
24　　I so admired Robie's courage and
25　resourcefulness that we became friends of the
26　heart. Together we invented an ice boat, a
27　bobsled with double runners, and fantastic
28　kites. On a small printing press in the
29　basement, we set type. When a neighbor,
30　Charlie Doyon, wanted to join us, we assented
31　only after he agreed to inveigle two hundred
32　dollars from his father for purchasing a larger
33　press and more type. With the new press, we
34　set up a firm called Wright, Doyon, and Lamp,
35　Publishers and Printers. That was the beginning
36　of a relationship that continued into our
37　adulthood.

25. The primary purpose of the passage is to

(A) show how much courage Wright had.
(B) show how Wright met his business partner.
(C) criticize those who are reluctant to help others.
(D) reveal that bullies will back down when challenged.

26. The mood of the first paragraph (lines 1–10) can best be described as one of

(A) overbearing pride.
(B) adolescent shyness.
(C) youthful enthusiasm.
(D) sentimental yearning.

27. It can be inferred that Wright and Lamp required Charlie Doyon to give them money before joining their business because they

(A) wanted to realize a profit before the actual business began.
(B) wanted to be sure that Charlie would not become a business rival.
(C) wanted to test Charlie's commitment to joining the business.
(D) thought that the business would benefit from a larger model press.

28. The phrase "my foray into the unknown" (line 15) refers to Wright's

(A) entrance into a new school.
(B) first encounter with Robie Lamp.
(C) summer experiences on his uncle's farm.
(D) unfamiliarity with the business world.

29. The sentence "I so admired Robie's courage and resourcefulness that we became friends of the heart" (lines 24–26) is included in order to

(A) explain why Wright did not torment Lamp.
(B) show that Lamp was lucky to win Wright's friendship.
(C) explain why Wright and Lamp's friendship was a lasting one.
(D) show that Wright was willing to overlook the fact that Lamp was older than Wright.

30. In line 31, "inveigle" most nearly means

(A) acquire.
(B) dismiss.
(C) purchase.
(D) return.

STOP. If there is time, you may check your work in this section only.

STOP

ISEE®

Mathematics Achievement

UPPER LEVEL

Practice Test

Section 4
Mathematics Achievement

42 Questions   **Time: 36 minutes**

Each question is followed by four suggested answers. Read each question and then decide which one of the four suggested answers is best.

Find the row of spaces on your answer document that has the same number as the question. In this row, mark the space having the same letter as the answer you have chosen. You may write in your test booklet.

SAMPLE QUESTION: Sample Answer
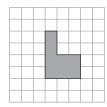
What is the area of a rectangle that has a length of 8 cm and a width of 6 cm?   Ⓐ Ⓑ ● Ⓓ

(A) 28 cm^2
(B) 36 cm^2
(C) 48 cm^2
(D) 64 cm^2

The correct answer is 48 cm^2, so circle C is darkened.

STOP. Do not go on until told to do so.   **STOP**

1. The area of each grid square shown is 5 cm².
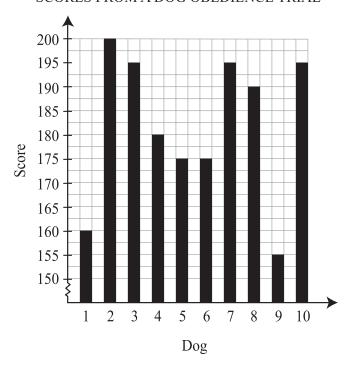
What is the area of the shaded region?

(A) 40 cm²
(B) 50 cm²
(C) 60 cm²
(D) 70 cm²

2. A jar contains 5 red balls, 6 blue balls, and 8 white balls. If one ball is chosen at random and then returned to the jar, and a second ball is chosen at random, what is the probability that both balls will be red?

(A) $\dfrac{1}{5}$

(B) $\dfrac{5}{19}$

(C) $\dfrac{1}{5} \times \dfrac{1}{5}$

(D) $\dfrac{5}{19} \times \dfrac{5}{19}$

3. What is the value of the numerical expression $3.2 \times 10^7 + 4.1 \times 10^5$?

(A) 4.132×10^5
(B) 3.61×10^6
(C) 3.241×10^7
(D) 7.3×10^{12}

4. Which value is NOT equal to $\dfrac{2}{3}$?

(A) 0.6666667
(B) $0.\overline{6}$
(C) $\dfrac{1}{1.5}$
(D) $\dfrac{2.4}{3.6}$

5. If $(8.05 + 1.95)t = t$, then what is the value of t?

(A) 10
(B) 1
(C) $\dfrac{1}{10}$
(D) 0

6. For what value of x is the equation $\dfrac{x+3}{3+x} = 0$ true?

(A) −3
(B) 0
(C) all real numbers
(D) There are no values for x that would make the equation true.

7. What is the value of the numerical expression $\sqrt{25 + 144}$?

(A) 7
(B) 13
(C) 17
(D) 60

Go on to the next page. ➡

8. The bar graph shown represents the scores of 10 different dogs at an obedience trial.

SCORES FROM A DOG OBEDIENCE TRIAL

What is the median score?

(A) 175
(B) 182
(C) 185
(D) 195

9. Two machines are used to make the same kind of electronic parts. Machine A makes 2 times the number of defective parts as Machine B. There was a total of 6 defective parts made yesterday by both machines. How many defective parts did Machine B make yesterday?

(A) 2
(B) 4
(C) 6
(D) 12

10. Lisa has taken three tests so far in her Biology class. Her scores on these tests are 93, 89, and 95. The score on her final exam will be counted twice in her mean. What is the lowest score she can get on her final exam and have a mean score of no less than 93?

(A) 93
(B) 94
(C) 95
(D) 96

11. Jane recorded the number of pets owned by each student in her class in the table shown.

PETS OWNED

Number of Pets	Numbers of Students Owning That Number of Pets
0	5
1	6
2	5
3	2
4	2

What is the mode of the data?

(A) 1
(B) 2
(C) 5
(D) 6

12. If n and m are prime numbers, what is the least common multiple of $8n$, $6nm$, and $4n^2$?

(A) $6nm$
(B) $6n^2m$
(C) $24nm$
(D) $24n^2m$

13. If $3x - 3 = xy - y$ and $x \neq 1$, what is the value of y?

(A) −3
(B) −1
(C) 1
(D) 3
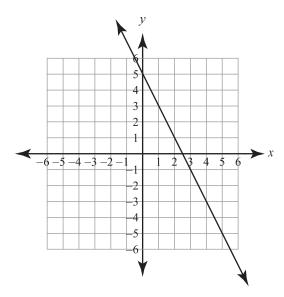
14. Which expression is equivalent to the expression $2x^2y^4 + 3x^4y^2 - (4x^4y^2 - 3x^2y^4)$?

(A) $5x^2y^4$
(B) $-2x^2y^4$
(C) $5x^2y^4 - x^4y^2$
(D) $-2x^2y^4 + 6x^4y^2$

15. For what value(s) of x does $\dfrac{x^2 - 25}{(x+2)(x-3)} = 0$?

(A) $x = 5$ only
(B) $x = -2$ and $x = 3$
(C) $x = -5$ and $x = 5$
(D) $x = -2$, $x = 3$, $x = -5$, and $x = 5$

Go on to the next page. ➡
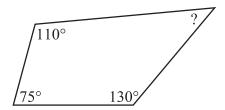
16. Which expression is equivalent to the expression $(x - 2)(x + 3)$?

    (A) $x^2 - 6$
    (B) $x^2 + 1$
    (C) $x^2 - x - 6$
    (D) $x^2 + x - 6$

17. The graph of a line is shown.

    What is the slope of the line?

    (A) -5
    (B) -2
    (C) 2
    (D) 5

18. Point $(1, 8)$ is on a circle with center $(-2, 4)$. What is the radius of the circle?

    (A) 3 grid units
    (B) 4 grid units
    (C) 5 grid units
    (D) 6 grid units
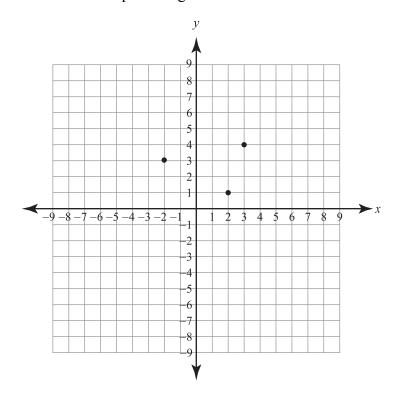
19. Terri is planning a survey to try to determine the average number of hours students at her school spend watching TV. Which sample of students will give her the most reliable information about the students in her school?

    (A) her friends
    (B) a random sample of all the students in the school
    (C) all of the people that show up to watch a football game
    (D) a random sample of the students in the library before school

20. The measures of three of the angles of a quadrilateral are shown in the diagram.

    What is the measure of the fourth angle?

    (A) 45°
    (B) 50°
    (C) 70°
    (D) 75°

21. The 6-member debate team plans to send 3 of its members to a conference. How many combinations of 3 members are possible from the 6-member team?

    (A) 15
    (B) 20
    (C) 120
    (D) 216

Go on to the next page. ➡

22. The grid shows three vertices of a parallelogram.
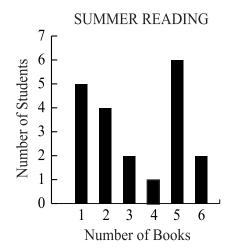
Which could be the coordinates of the fourth vertex of the parallelogram?

(A)   (−3, 5)
(B)   (−2, 0)
(C)   (0, 1)
(D)   (7, 2)

---

23. Which describes all values of x for which $|4x - 7| \geq 9$?

   (A) $x \geq 4$

   (B) $x \leq \dfrac{1}{2}$

   (C) $x \geq \dfrac{1}{2}$ or $x \leq -4$

   (D) $x \leq -\dfrac{1}{2}$ or $x \geq 4$

24. What type of number could NOT result from the difference of two irrational numbers?

   (A) integer
   (B) rational number
   (C) complex number
   (D) irrational number

Go on to the next page. ➡

25. The graph shows the number of books read by the students in Mrs. Schill's class last summer. The numbers on the horizontal axis represent the number of books read during the summer, and the height of the bar represents the number of students who read this number of books.

SUMMER READING

What is the mean number of books read over the summer?

(A) 3.00
(B) 3.25
(C) 3.50
(D) 4.00

26. A solution set is graphed on the number line shown.

The solution set of which inequality is shown?

(A) $|x - 4| < 3$
(B) $|x + 4| < 3$
(C) $|x - 3| < 4$
(D) $|x + 3| < 4$

27. A coin is tossed three times. The table shows the possible outcomes and the probability of each outcome.

COIN TOSS

Number of Heads	Probability
3	$\dfrac{1}{8}$
2	$\dfrac{3}{8}$
1	$\dfrac{3}{8}$
0	$\dfrac{1}{8}$

What is the expected number of heads?

(A) 1
(B) $\dfrac{3}{2}$
(C) 2
(D) $\dfrac{5}{2}$

28. There are 0.305 meters in one foot. There are 5,280 feet in 1 mile. A horse is traveling at a speed of 400 meters per minute. Which expression has a value equal to the horse's speed, in miles per hour?
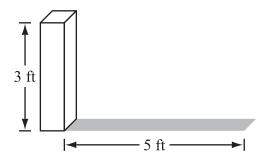
(A) $\dfrac{400 \times 60}{0.305 \times 5,280}$

(B) $\dfrac{400 \times 60 \times 0.305}{5,280}$

(C) $\dfrac{60}{400 \times 0.305 \times 5,280}$

(D) $\dfrac{400 \times 0.305 \times 5,280}{60}$

Go on to the next page. ➡
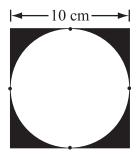
29. Allen measures the height of a pole to be 3 feet and the length of the shadow of the pole to be 5 feet, as shown in the diagram.

At the same time, the shadow of a tree is 20 feet in length. What is the height of the tree?
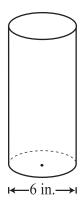
(A) 8 feet
(B) 12 feet
(C) 15 feet
(D) 18 feet

30. Which is the most reasonable unit to use when measuring the length of a leaf?

(A) centimeters
(B) grams
(C) kilograms
(D) meters

31. Which numerical expression does NOT represent an integer?

(A) $\sqrt{4} - \sqrt{25}$
(B) $\sqrt{4} \times \sqrt{25}$
(C) $\sqrt{25 - 4}$
(D) $\sqrt{4 \times 25}$

32. A circle is inscribed in a square with side length 10 cm, as shown.

What is the area of the shaded region?

(A) $(40 - 10\pi)$ cm^2
(B) $(40 - 20\pi)$ cm^2
(C) $(100 - 25\pi)$ cm^2
(D) $(100 - 100\pi)$ cm^2

33. The height of the cylinder shown is 2 times its diameter. The formula used to find the volume of a cylinder is $V = r^2 h\pi$, where r is the radius of the cylinder and h is the height of the cylinder.
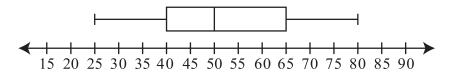
If the diameter of the cylinder is 6 in., what is its volume, in inches^3?

(A) 432π
(B) 108π
(C) 72π
(D) 54π

Go on to the next page. ➡

MA
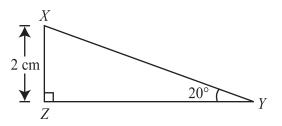
34. The box-and-whisker plot below represents the high temperature, in degrees Fahrenheit, at a certain location on the same day in May for the last 50 years.

What is the range of the data?

(A) 80
(B) 55
(C) 50
(D) 25

---

35. A bag contains 4 green marbles, 5 blue marbles, 2 yellow marbles, and 4 orange marbles. Kate randomly removes 1 marble from the bag and keeps it. Joanne then randomly removes a marble from the bag. If the marble Kate removed from the bag was yellow, what is the probability that the marble Joanne removed was green?

(A) $\dfrac{4}{14}$

(B) $\dfrac{4}{15}$

(C) $\dfrac{2}{15} \times \dfrac{4}{15}$

(D) $\dfrac{2}{15} \times \dfrac{4}{14}$

36. Which expression is equivalent to the expression $\sqrt{16x^{16}}$?

(A) $4x^4$
(B) $4x^8$
(C) $8x^4$
(D) $8x^8$

37. Triangle XYZ is shown. The length of $\overline{XZ}$ is 2 cm. The measure of angle XYZ is 20°.

The value of which expression is equal to the length of side $\overline{XY}$?

(A) $\dfrac{2}{\sin 20°}$

(B) $\dfrac{\sin 20°}{2}$

(C) $\dfrac{2}{\tan 20°}$

(D) $\dfrac{\tan 20°}{2}$

Go on to the next page. ➡

38. Which graph represents the solution set of the inequality $41 \leq 2x - 1 \leq 51$?

(A)

0 10 20 30 40 50 60 70 80 90 100

(B)

0 10 20 30 40 50 60 70 80 90 100

(C)

0 10 20 30 40 50 60 70 80 90 100

(D)

0 10 20 30 40 50 60 70 80 90 100

---

39. The stem-and-leaf-plot shown represents the scores on a math test.

TEST SCORES

Stem	Leaf
5	5 7 8
6	2 2 2 4 6 7 8
7	4 6 6 6 7 8 8 9 9
8	3 3 3 4 4 5
9	1 2 2 3 7 8 9
10	0

What is the median score on the test?

(A) 70
(B) 75
(C) 78
(D) 80

40. What is the solution set for $x^2 + 49 = 0$?

(A) 7
(B) $7i$
(C) ± 7
(D) $\pm 7i$

41. What is the result of the expression

$$\begin{bmatrix} 2 & 3 \\ 0 & 4 \end{bmatrix} + \begin{bmatrix} 5 & 3 \\ 2 & 1 \end{bmatrix}?$$

(A) $\begin{bmatrix} 7 & 6 \\ 2 & 5 \end{bmatrix}$

(B) $\begin{bmatrix} 7 & 6 \\ 0 & 4 \end{bmatrix}$

(C) $\begin{bmatrix} 7 & 3 \\ 2 & 4 \end{bmatrix}$

(D) $\begin{bmatrix} 7 & 3 \\ 0 & 5 \end{bmatrix}$

42. The formula for the surface area of a sphere is $SA = 4\pi r^2$, where r is the radius of the sphere. A sphere has a surface area of 16π cm^2. What is the radius of this sphere?

(A) 2 cm
(B) 4 cm
(C) 8 cm
(D) 16 cm

STOP. If there is time, you may check your work in this section only.

STOP

ISEE®

Essay

UPPER LEVEL

Practice Test

Essay Topic Sheet

The directions for the Essay portion of the ISEE are printed in the box below. Use the pre-lined pages in Appendix B (pages 141–142) for this part of the Practice Test.

Note: The page references in the directions below refer to the page numbers at the bottom of the answer sheet, not to the page numbers of the *What to Expect on the ISEE* book.

You will have 30 minutes to plan and write an essay on the topic printed on the other side of this page. **Do not write on another topic. An essay on another topic is not acceptable.**

The essay is designed to give you an opportunity to show how well you can write. You should try to express your thoughts clearly. How well you write is much more important than how much you write, but you need to say enough for a reader to understand what you mean.

You will probably want to write more than a short paragraph. You should also be aware that a copy of your essay will be sent to each school that will be receiving your test results. You are to write only in the appropriate section of the answer sheet. Please write or print so that your writing may be read by someone who is not familiar with your handwriting.

You may make notes and plan your essay on the reverse side of the page. Allow enough time to copy the final form onto your answer sheet. You must copy the essay topic onto your answer sheet, on page 3, in the box provided.

Please remember to write only the final draft of the essay on pages 3 and 4 of your answer sheet and to write it in blue or black pen. Again, you may use cursive writing or you may print. Only pages 3 and 4 will be sent to the schools.

Directions continue on the next page.

REMINDER: Please write this essay topic on the first few lines of page 3 of your answer sheet.

Essay Topic

Who is someone to whom you look up? Explain why you feel this way.

- Only write on this essay question
- Only pages 3 and 4 will be sent to the schools
- Only write in blue or black pen

Notes

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SCORING THE

PRACTICE TEST

ISEE®

UPPER LEVEL

Step-by-Step Directions

When you have finished all five sections of the Practice Test, you will be ready to grade and score your test. Follow the steps on these next pages exactly as written, and you will soon know your score and how you did compared to other students who have taken a similar practice test.

You will have three scores when you finish: your raw score, your scaled score range, and your quartile. As you determine these three scores, enter them in the table below.

ISEE PRACTICE TEST SCORING

	ISEE Sections			
	Verbal Reasoning	**Quantitative Reasoning**	**Reading Comprehension**	**Mathematics Achievement**
1. Raw Score				
2. Scaled Score Range				
3. Quartile				

Finding Your Raw Score

The number of questions that you have answered correctly is called your "raw score." As you will see, you get one point for every question that you answer correctly, but no points for a question you answer incorrectly or leave out.

1. Turn to page 117 and place your answer sheet beside the column headed Verbal Reasoning.
2. Enter the answer that you chose for question 1 in the "Your Answer" column. Next, move to the column to the right and put a "+" if your answer is correct. Leave this box blank if your answer is wrong or if you skipped this question.
3. Continue until you have entered your answers beside the correct answers to each of the 35 Verbal Reasoning questions.
4. Move your Practice Test answer sheet beside the column headed Quantitative Reasoning on page 118 and follow steps 2 and 3 above. *(Note: Although the Practice Test Answer Key lists questions by NCTM standards, on the actual Individual Student Report (ISR), this section lists your results by type of question.)*
5. Move to Reading Comprehension (page 119) and Mathematics Achievement (page 120) in turn and follow steps 2 and 3 above. Remember to skip questions you did not answer as you mark down your answers.
6. Count the number of correct (+) answers in each section. For example, if you have 12 "+" marks in Verbal Reasoning, write 12 next to Total Correct.
7. Count each section separately and write down the number of correct answers next to Total Correct. These are your raw scores.
8. **Enter the raw scores for each section on line 1 of the table above.**

For a full explanation of scaled scores, percentiles and stanines, please see the "Understanding the Individual Student Report (ISR)" section of this book.

Finding Your Scaled Score

You will need to convert (change) your raw score to a scaled score to see what it means and how you compare with other students who took a similar test. This step is necessary because there are different forms of the ISEE, and the scaled score helps the people who score the ISEE to compare your score with other scores. We have provided a scaled score range for each raw score, because the Practice Test that you took cannot be equated exactly with the real ISEE test. The reason: the Practice Test was not taken under a real testing environment at a school or ISEE office. Nevertheless, the score you calculate here will be sufficiently close for you to feel confident in the score you can expect. Your actual ISEE score report will show a single scaled score for each section rather than the ranges shown on these conversion tables. Follow these steps exactly.

1. Turn to the conversion tables on pages 121–124. Note there are several tables (one for each section).
2. Find the correct conversion table for the raw score of the test you wish to equate. For example, in the table for Verbal Reasoning, find the line that lists the total of your correct answers (your "raw" score) on the Verbal Reasoning section. Find the reported range of scaled score beside your raw score. **Record these numbers under the corresponding column on line 2 of the table on page 114.**
3. Repeat for the other three sections.

Finding Your Quartile Score

Your quartile score is based on how you compare to other students applying to the same grade. Using the comparative data table that is next to the conversion table in each separate section, find the quartile that corresponds to your scaled score. **Record the quartile for each section on line 3 of the table on page 114**.

Reviewing Your Essay

The ISEE does NOT score your essay. A copy of your essay will be made available to each school you listed to receive your scores. Each school will judge the essay independently, using its own standards. Remember, the essay and the rest of the ISEE are only two of the pieces of information admission officers will use to determine your potential for success at their schools.

For this Practice Test, we suggest that you ask an adult who knows you to read your practice essay and give you feedback about how you did, using the tips for essay writing found on page 56.

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ISEE Practice Test Answer Keys

Verbal Reasoning Answer Key—Upper Level (35 items)

Item	Key	Your Answer	+ If Correct	*Type
1	A			S
2	D			S
3	D			S
4	C			S
5	D			S
6	A			S
7	B			S
8	B			S
9	D			S
10	A			S
11	D			S
12	A			S
13	D			S
14	A			S
15	A			S
16	C			S
17	C			S
18	D			SWR
19	A			SWR
20	C			SWR
21	A			SWR
22	D			SWR
23	B			SWR
24	D			SWR
25	D			SWR
26	A			SWR
27	C			SWR
28	B			PWR
29	A			PWR
30	B			PWR
31	C			PWR
32	A			PWR
33	D			PWR
34	A			PWR
35	A			PWR
TOTAL CORRECT				

*Key to Type of Item

S   = **S**ynonyms
SWR = **S**ingle **W**ord **R**esponse
PWR = **P**aired **W**ord **R**epsonse

117

Quantitative Reasoning Answer Key—Upper Level (32 items)

Item	Key	Your Answer	+ If Correct	*Type
1	A			A
2	B			A
3	A			N
4	D			M
5	B			A
6	C			D
7	C			M
8	A			A
9	B			G
10	B			N
11	A			A
12	D			D
13	B			D
14	D			D
15	C			N
16	B			N
17	D			M
18	A			G
19	C			N
20	B			M
21	C			N
22	B			A
23	A			G
24	D			M
25	A			A
26	B			N
27	A			A
28	D			A
29	C			D
30	A			D
31	B			D
32	B			N
TOTAL CORRECT				

*Key to Type of Item

N = **N**umbers and Operations
A = **A**lgebraic Concepts
G = **G**eometry
M = **M**easurement
D = **D**ata Analysis and Probability

(On the actual Individual Student Report, your results for Quantitative Reasoning will only list Word Problems and Quantitative Comparisons.)

Reading Comprehension Answer Key—Upper Level (30 items)

Item	Key	Your Answer	+ If Correct	*Type
1	B			MI
2	C			V
3	C			SI
4	C			SI
5	B			I
6	B			I
7	D			MI
8	A			I
9	B			O/L
10	D			SI
11	D			I
12	B			SI
13	A			MI
14	B			V
15	C			O/L
16	B			SI
17	B			T/S/F
18	A			O/L
19	C			MI
20	D			I
21	D			I
22	D			SI
23	B			O/L
24	C			O/L
25	B			MI
26	C			T/S/F
27	D			I
28	A			T/S/F
29	C			O/L
30	A			V
TOTAL CORRECT				

*Key to Type of Item

MI = **M**ain **I**dea
SI = **S**upporting **I**deas
I = **I**nference
V = **V**ocabulary
O/L = **O**rganization/**L**ogic
T/S/F = **T**one/**S**tyle/**F**igurative Language

Mathematics Achievement Answer Key—Upper Level (42 items)

Item	Key	Your Answer	+ If Correct	*Type	Item	Key	Your Answer	+ If Correct	*Type
1	A			M	22	D			G
2	D			D	23	D			A
3	C			N	24	C			N
4	A			N	25	B			D
5	D			A	26	D			A
6	D			A	27	B			D
7	B			N	28	A			M
8	C			D	29	B			G
9	A			A	30	A			M
10	B			D	31	C			N
11	A			D	32	C			M
12	D			N	33	B			M
13	D			A	34	B			D
14	C			A	35	A			D
15	C			A	36	B			A
16	D			A	37	A			G
17	B			A	38	A			A
18	C			G	39	C			D
19	B			D	40	D			N
20	A			G	41	A			N
21	B			A	42	A			M
					Total Correct				

*Key to Type of Item

N = **N**umbers and Operations
A = **A**lgebraic Concepts
G = **G**eometry
M = **M**easurement
D = **D**ata Analysis and Probability

Practice Test Conversion Tables and Percentiles (Quartiles)

Verbal Reasoning Conversion Table — Upper Level

2016 ISEE Practice Tests Scaled Score Ranges (Min. = 808 and Max. = 940)		
Raw Score	***Reported Range**	
35	910	940
34	907	937
33	904	934
32	902	932
31	899	929
30	896	926
29	893	923
28	890	920
27	887	917
26	884	914
25	881	911
24	878	908
23	875	905
22	873	903
21	870	900
20	867	897
19	864	894
18	861	891
17	858	888
16	855	885
15	852	882
14	849	879
13	846	876
12	844	874
11	841	871
10	838	868
9	835	865
8	832	862
7	829	859
6	826	856
5	823	853
4	820	850
3	817	847
2	814	844
1	811	841
0	808	838

Comparative Data Scaled Score Quartiles Based on 2015–2016 ISEE Norms			
Applicants to Grade	**75th**	**50th**	**25th**
9	894	881	867
10	896	882	867
11	899	886	869
12	903	887	870

* Minimum reported range is 30 points wide.

Quantitative Reasoning Conversion Table—Upper Level

2016 ISEE Practice Tests Scaled Score Ranges (Min. = 807 and Max. = 945)		
Raw Score	***Reported Range**	
32	915	945
31	912	942
30	908	938
29	905	935
28	901	931
27	898	928
26	894	924
25	891	921
24	888	918
23	884	914
22	881	911
21	878	908
20	874	904
19	871	901
18	868	898
17	864	894
16	861	891
15	858	888
14	854	884
13	851	881
12	847	877
11	844	874
10	840	870
9	837	867
8	833	863
7	830	860
6	827	857
5	823	853
4	820	850
3	817	847
2	814	844
1	810	840
0	807	837

* Minimum reported range is 30 points wide.

Comparative Data Scaled Score Quartiles Based on 2015–2016 ISEE Norms			
Applicants to Grade	**75th**	**50th**	**25th**
9	895	880	867
10	900	883	871
11	901	888	872
12	903	888	875

Reading Comprehension Conversion Table—Upper Level

2016 ISEE Practice Tests Scaled Score Ranges (Min. = 797 and Max. = 939)		
Raw Score	*Reported Range	
30	909	939
29	905	935
28	902	932
27	898	928
26	894	924
25	890	920
24	887	917
23	883	913
22	879	909
21	875	905
20	872	902
19	868	898
18	864	894
17	860	890
16	857	887
15	853	883
14	849	879
13	845	875
12	841	871
11	838	868
10	834	864
9	830	860
8	827	857
7	823	853
6	819	849
5	816	846
4	812	842
3	808	838
2	804	834
1	801	831
0	797	827

* Minimum reported range is 30 points wide.
  Range can be wider at some points.

Comparative Data Scaled Score Quartiles Based on 2015–2016 ISEE Norms			
Applicants to Grade	75th	50th	25th
9	900	884	867
10	902	887	868
11	905	891	873
12	906	891	869

Mathematics Achievement Conversion Table—Upper Level

2016 ISEE Practice Tests Scaled Score Ranges (Min. = 807 and Max. = 950)		
Raw Score	*Reported Range	
42	920	950
41	917	947
40	915	945
39	912	942
38	909	939
37	907	937
36	904	934
35	901	931
34	898	928
33	896	926
32	893	923
31	890	920
30	888	918
29	885	915
28	882	912
27	880	910
26	877	907
25	874	904
24	872	902
23	869	899
22	866	896
21	863	893
20	861	891
19	858	888
18	855	885
17	853	883
16	850	880
15	847	877
14	845	875
13	842	872
12	839	869
11	837	867
10	834	864
9	831	861
8	828	858
7	826	856
6	823	853
5	820	850
4	818	848
3	815	845
2	812	842
1	809	839
0	807	837

*Minimum reported range is 30 points wide.

Comparative Data Scaled Score Quartiles Based On 2015–2016 ISEE Norms			
Applicants to Grade	75th	50th	25th
9	897	883	869
10	903	887	872
11	906	891	875
12	908	892	877

UNDERSTANDING THE

INDIVIDUAL STUDENT

REPORT (ISR)

ISEE®

UPPER LEVEL

Sample Individual Student Report (ISR)

ERB | ISEE® INDEPENDENT SCHOOL ENTRANCE EXAM

Candidate for Grade	9
ID Number	345678
Gender	Male
Date of Birth	06/26/1996
Phone Number	212-555-4567
Test Level/Form	Upper/73
Date of Testing	12/05/2009
Tracking Number	200912100996

Individual Student Report

Lee Y Chang
220 East 42nd Street, Apt. 1
New York, NY 10001

The Test Profile below shows your total scores for each section. Refer to the enclosed brochure called Understanding the Individual Student Report to help you interpret the Test Profile and Analysis. Percentile Ranks and Stanines are derived from norms for applicants to independent schools.

TEST PROFILE

Section	Scaled Score (760 – 940)	Percentile Rank (1 – 99)	Stanine (1 – 9)	Stanine Analysis 1 2 3 4 5 6 7 8 9
Verbal Reasoning	875	48	5	V
Reading Comprehension	894	69	6	R
Quantitative Reasoning	865	31	4	Q
Mathematics Achievement	884	61	6	M

LEGEND: V = Verbal Reasoning   R = Reading Comprehension   Q = Quantitative Reasoning   M = Mathematics Achievement

ANALYSIS

Section & Subsection	# of Questions	# Correct	Results for Each Question
Verbal Reasoning			
Synonyms	17	10	+ - ++ - ++ - - +++ - - - ++
Single Word Response	10	6	+++ - + - + - + -
Paired Word Response	8	6	+ - ++ - +++
Quantitative Reasoning			
Word Problems	18	10	++ - + - + - - - ++ - - + - +++
Quantitative Comparisons	14	5	+ - - - - + - + - ++NNN
Reading Comprehension			
Main Idea	5	4	+ - +++
Supporting Ideas	5	5	+++++
Inference	10	7	+++ - + - +++ -
Vocabulary	4	2	++ - -
Organization/Logic	4	2	- - ++
Tone/Style/Figurative Language	2	1	+ -
Mathematics Achievement			
Number Sense	6	4	+++ - + -
Algebraic Concepts	14	8	++ - + - S - + - ++ - NN
Geometry	6	3	++S - +N
Measurement	6	4	+ - +++S
Data Analysis and Probability	10	6	+++ - - ++ - - +

LEGEND: **+** = Correct   **-** = Incorrect   S = Skipped   N = Not Reached

The test was administered in the order reported in the analysis section; Verbal Reasoning, Quantitative Reasoning, Reading Comprehension, and Mathematics Achievement. Each section was divided into subsections, grouping similar types of questions. The Reading Comprehension subsection grouping does not represent the actual order of the test questions.

At your request, your ISEE scores and a copy of your essay have been sent to the schools or consultants listed below. To have your scores sent to other schools or consultants, order additional reports using the enclosed form.

Code	School/Consultant	Code	School/Consultant
000000	Your School		

Figure 1. Sample Score Report – Upper Level

The *Independent School Entrance Exam* (ISEE) consists of verbal and quantitative reasoning sections, mathematics and reading comprehension achievement sections, and an essay that demonstrates a student's writing skills. The **reasoning sections (Verbal and Quantitative)** measure what a student is capable of achieving or learning; the **Mathematics Achievement and Reading Comprehension** sections show how well the student understands concepts already studied.

The purpose of this section of this book is to help students and their parents understand the information presented in the *Individual Student Report* (ISR). The ISR is a concise and useful summary of the student's performance on the ISEE. Different parts of the report provide information that may be used in the admission process to understand, compare, and evaluate student performance. A complete, actual sample ISR is shown on the previous page (Figure 1). Two parts of the report—the Test Profile and Analysis—are explained on the following pages.

Test Profile

The Test Profile near the top of the report provides information about the student's overall performance on each section of the ISEE, except the essay; an unscored copy of the essay is sent to each school for which the student requests score reports.

Figure 2 shows the Test Profile from the sample ISR in Figure 1.

Section	Scaled Score (760 – 940)	Percentile Rank (1 – 99)	Stanine (1 – 9)	Stanine Analysis 1 2 3 4 5 6 7 8 9
Verbal Reasoning	875	48	5	▬V▬
Reading Comprehension	894	69	6	▬R▬
Quantitative Reasoning	865	31	4	▬Q▬
Mathematics Achievement	884	61	6	▬M▬

LEGEND: V = Verbal Reasoning   R = Reading Comprehension   Q = Quantitative Reasoning   M = Mathematics Achievement

Figure 2. Sample Test Profile

The ISEE scores are reported in four ways in order to provide a comprehensive picture of the student's performance:

- Scaled Scores
- Percentile Rank
- Stanine
- Stanine Analysis

The Test Profile reports ISEE scores both as scaled scores and as percentile ranks with reference to ISEE norms. These norms are based on independent school applicants in the same grade who have taken the ISEE during the past three years. The Test Profile also shows stanines and a stanine analysis. These terms are discussed on the following pages.

The norm group for this test is a very competitive group of students who are applying to independent schools. Therefore, a student is compared only to other students in the same grade who have applied to independent schools in the last three years. Given that this is a competitive group of students, a student's performance may be less than what it has been on other tests where the comparison group is less selective. Admission offices are aware of this difference in the norming populations and do not expect all applicants to be "above" the norm.

Scaled Scores

ISEE scaled scores for each section range from 760 to 940. The scaled score is derived from the raw score—the number of questions the student answered correctly—but is more useful than the raw score because the scaled score has the same meaning regardless of which version of the test was used. ERB administers many different versions of the test each year. The scaled score takes these slight differences into account and allows ERB to report a score on a common scale that has the same meaning for all students, regardless of the version taken.

Percentile Rank

The percentile rank shows the student's standing when compared to other students in the norm group for this examination. The rank is based on scores obtained from all students in a given grade who have taken the test over the past three years. Percentile rank scores range from 1 to 99. A percentile rank of 61 on Mathematics Achievement, for example, as depicted in Figure 2, indicates that the student scored as well as or better than 61 percent of all students in the norm group and less well than 38 percent (out of a total of 99 percentile points).

Small differences in percentile ranks on different tests may or may not represent significant differences in performance on those subtests. For this reason, ISEE scores are also reported as stanines.

Stanine

A stanine is a score from 1 to 9, with 5 as the midpoint. Stanines are derived by dividing the entire range of students' scores into 9 segments, as follows:

Percentile Rank	Stanine
1–3	1
4–10	2
11–22	3
23–39	4
40–59	5
60–76	6
77–88	7
89–95	8
96–99	9

Stanine Analysis

The stanine analysis permits comparisons between a student's performance on both the ability tests and the related achievement tests. Specifically, these comparisons are made between Verbal Reasoning (V) and Reading Comprehension (R), and between Quantitative Reasoning (Q) and Mathematics Achievement (M). Each letter in the stanine analysis box in the Test Profile is the midpoint of a band that extends to either side of the stanine score. The percentile score is an estimate of a student's ability or knowledge. We can be reasonably certain that a student's "true score" falls within the band reflected by a particular stanine. If the stanine is 5, for example, the percentile rank range is 40–59.

In the example shown in Figure 2, the band for Reading Comprehension (R) is a bit higher than, but still overlaps, the band for Verbal Reasoning (V). This indicates that the student's performance in reading is mostly consistent with the estimate of his verbal reasoning ability. To a degree, because the band for Reading Comprehension is slightly to the right of the band for Verbal Reasoning, we can infer that the student was performing better than expected. Conversely, if the Reading Comprehension band were to the left of the Verbal Reasoning band, we could be reasonably certain that the student was working below his potential. The same kinds of comparisons can be made between the Mathematics Achievement and the Quantitative Reasoning bands.

Analysis

In the Analysis portion of the ISR, each section score indicates the number of questions answered correctly, the number of questions answered incorrectly, and the number of questions omitted or not reached. Each section score is broken down by type of question, providing more specific information about a student's relative strengths and weaknesses.

Figure 3 shows the Analysis part of the sample ISR in Figure 1.

Section & Subsection	# of Questions	# Correct	Results for Each Question
Verbal Reasoning			
Synonyms	17	10	+ - ++ - ++ - - +++ - - - ++
Single Word Response	10	6	+++ - + - + - + -
Paired Word Response	8	6	+ - ++ - +++
Quantitative Reasoning			
Word Problems	18	10	++ - + - + - - - ++ - - + - +++
Quantitative Comparisons	14	5	+ - - - - + - + - ++NNN
Reading Comprehension			
Main Idea	5	4	+ - +++
Supporting Ideas	5	5	+++++
Inference	10	7	+++ - + - +++ -
Vocabulary	4	2	++ - -
Organization/Logic	4	2	- - ++
Tone/Style/Figurative Language	2	1	+ -
Mathematics Achievement			
Number Sense	6	4	+++ - + -
Algebraic Concepts	14	8	++ - + - S - + - ++ - NN
Geometry	6	3	++S - +N
Measurement	6	4	+ - +++S
Data Analysis and Probability	10	6	+++ - - ++ - - +

LEGEND: **+** = Correct   **-** = Incorrect   S = Skipped   N = Not Reached

Figure 3. Sample Analysis

In the first column, each section is broken down into curricular areas and/or skills. The next two columns show the number of questions and the number the student answered correctly for each subsection. The symbols in the fourth and final column indicate whether the student answered each individual question in the subsection correctly (+), answered the question incorrectly (–), skipped the question (S), or did not reach the question (N). Questions coded S are those that appear to have been deliberately skipped by the student, since subsequent questions in the subsection were answered. Questions coded N are at the end of the section (not necessarily at the end of the subsection) and were not answered, perhaps because the student ran out of time.

For all levels, the left-to-right sequence of symbols in the fourth column reflects the order of the questions in the section. In general, questions on each section are ordered by difficulty, with the easier questions at the beginning and the harder questions at the end. This is not the case for Reading Comprehension, however, as questions in this section are placed in logical order as they relate to the associated reading passage.

Verbal Reasoning

The Verbal Reasoning section includes 17 synonyms and 18 sentence completions —10 single word response and 8 paired word response—for a total of 35 questions. In Figure 3, the student did answer all 35 Verbal Reasoning questions; he only answered 22 of these correctly, and some of his errors were made on relatively easier questions.

The synonyms assess a student's vocabulary as well as his or her ability to understand relationships among words and subtle differences in meaning. In Figure 3, we can see that this student attempted to answer all 17 synonym items, though he answered seven of these incorrectly. Although these seven are scattered throughout the subsection, most are clustered toward the middle or end, as these are the more difficult items.

Sentence completion requires the student to integrate successfully information beyond the immediate context of the phrase/sentence and incorporate subsuming concepts and ideas presented in the text using syntactic and semantic cues. Again, the student profiled in Figure 3 attempted to answer all 18 sentence completion questions; he answered 12 of these correctly. His errors on the single word response items tended toward the mid-range to more difficult items, while his errors on the paired word response items tended to be toward the easier end.

Quantitative Reasoning

This section requires the student to show an understanding of concepts by using logical reasoning, synthesis, skill, and comprehension. There are 18 word problems and 14 quantitative comparison problems in the Quantitative Reasoning section, for a total of 32 items.

To solve a word problem, the student must invoke a rule and then apply it. In the fourth column of Figure 3, we can see by the absence of Ss and Ns that the student attempted every word problem. Of the 18 items, however, he missed eight, and these were scattered throughout the subsection.

The quantitative comparison items present two quantities and require the student to determine which is greater, whether they are equal, or whether the information given is insufficient to make a determination. While this student attempted all but three of the quantitative comparison questions, these three being items he evidently did not reach, he got a substantial portion of the easier items wrong.

Reading Comprehension

The Reading Comprehension section has 30 questions relating to five passages. These include questions on main idea, supporting ideas, inference, vocabulary, organization/logic, and tone/style/figurative language. Unlike questions on other test sections, which are ordered by difficulty, the Reading Comprehension questions are listed in the order they appear on the test within each of the reading passage sections. Figure 3 indicates that this student attempted to answer all 30 items; the pattern of correct and incorrect answers suggests that his strengths may lie in a grasp of implicit information (e.g., main idea and supporting ideas), while he may be somewhat weaker in discerning more concrete information (e.g., vocabulary).

Mathematics Achievement

There are 42 items on the Mathematics Achievement section, covering five skill areas. In line with a traditional notion of mathematics achievement, these items call for the identification of and solutions to problems requiring one or more steps in calculation. The student whose performance is depicted in Figure 3 seems to have an inconsistent mastery of the mathematical concepts, although given the relative location of the Quantitative Reasoning (Q) and Mathematics Achievement (M) bands in the stanine analysis (the M band being to the right of the Q band), he performed better than might have been expected.

Conclusion

Putting the ISEE in Perspective

It is helpful to remember that students in more than one grade are taking a particular level of the ISEE. Therefore it is possible that some of the questions may seem particularly difficult to you because you may not have learned some of the concepts in school yet. Your score on the ISEE is compared *to only students in your grade*, and those students are probably learning about the same things that you are. In that case, good preparation for the test includes being attentive in school and keeping up with your class work and homework. There are no benefits to frantically reviewing materials at the last minute, and in fact, you will probably make yourself very anxious if you do this. It is more important to get a good night's sleep the night before and to have a proper breakfast. Remember that your ISEE scores are only part of the admission process. Schools also want to know about you as a person and what you can contribute to their school community.

We wish you the best of luck in your school search and hope that this book has been helpful in showing you what to expect on the ISEE. For more information, please visit ERB's Web site at www.erblearn.org.

APPENDICES

ISEE®

UPPER LEVEL

Appendix A
ISEE Content and Specifications

The sample questions and practice tests represent actual questions from previous tests, as well as newly developed questions similar to the ones students will find on the current ISEE. As a result, students get the best examples of the kinds of questions and the approximate level of difficulty that they will find when they take the ISEE. The purpose of this appendix is to provide students and their parents with additional information about the ISEE.

Verbal Reasoning

Over the past century, academic and behavioral research have identified specific abilities that are relevant to academic performance and, therefore, can be used as predictors of academic success. Verbal reasoning and quantitative reasoning are among those abilities and are an integral part of the ISEE.

Verbal reasoning is the ability to reason, infer, and interpret words, sentences, and discourse in order to extract meaning and solve problems. The student must recognize relationships, make contrasts and comparisons, follow logic, analyze problems, and think critically about what is being asked or expressed. Item types that are often used for verbal reasoning include the following: extracting explicit information, following directions, inferring word or phrase meaning, determining main idea of text, analyzing similar and dissimilar concepts and situations, and evaluating strength and logic of arguments.

The Verbal Reasoning section of the ISEE is comprised of two kinds of questions: synonyms and sentence completions. Both of these kinds of questions test the depth and breadth of the student's vocabulary, and both test reasoning ability in different ways. Synonyms focus more on word recognition and the ability to understand the relationships of other words and to discriminate among subtle differences in meaning. The reasoning function of synonyms takes place when the student must choose the word that is closest in meaning to the prompt word from among two or more related answer choices.

Sentence completion questions not only test vocabulary, but also measure a student's knowledge of words and their functions. The student must use both syntactic and semantic information within the text and identify cues within the given sentence and across sentences. The student will be required to successfully integrate information beyond the immediate context of the phrase/sentence and incorporate subsuming concepts and ideas presented in the text. In the Upper Level forms of the ISEE, the sentence completion answer choices are words or pairs of words that provide a logical completion to the sentence fragment in the test item.

The following table shows the total number of test items in the actual Upper Level Verbal Reasoning section.

VERBAL REASONING SECTION

Item Type	Number of Items
Synonyms	19
Sentence Completion (Single Word Response)	12
Sentence Completion (Paired Word Response)	9
Total Items for Verbal Reasoning Section	**40**

Of the 40 total items, 35 are scorable items reported on the Individual Student Report (ISR), and 5 are unscored items that may be used on future versions of the ISEE.

Quantitative Reasoning

The Quantitative Reasoning section has the student show that he or she can do more than recall and recognize facts, definitions, and symbols; read a graph and compute using standard algorithms; or estimate answers to computation problems. The reasoning section requires the student to show an understanding of concepts by using logical reasoning, synthesis, skill, and comprehension. These questions ask the student to relate and integrate his or her knowledge of mathematics. They allow the student to show that he or she can apply that knowledge by interpreting data, solving application problems, estimating, recognizing patterns, and solving non-routine problems. The kinds of questions that are in the Quantitative Reasoning section are often called higher-order thinking problems.

Quantitative reasoning entails the ability to use numbers and numerical concepts in order to solve problems. Questions may ask the student to recognize and apply a required numerical operation; estimate numerical values; employ logic to determine what a particular problem entails; compare and contrast quantities; analyze and interpret data; analyze, compare, predict, draw conclusions, and summarize graphs; use reason to calculate the probability of events; understand concepts and applications of measurement; and know how to arrive at statistical solutions to given problems. Questions require the student to synthesize information, determine what is relevant (and irrelevant), select appropriate analysis techniques, and apply them. The emphasis is on the ability to reason and solve problems in a quantitative context. Actual calculations may or may not be required.

The Quantitative Reasoning section on the Upper Level ISEE consists of two types of test items: word problems and quantitative comparisons.

1. The word problems differ somewhat from traditional mathematics achievement items in that some of them require no calculation. To solve a quantitative reasoning word problem, the student must invoke a rule and then apply it. The emphasis is on rule generation, hence the absence of calculation in some items and the simplicity of calculation in others.

2. The quantitative comparison items present two quantities and require the student to determine if one quantity is greater, if the quantities are equal, or if the information given is insufficient to make a determination.

The table below shows the total number of items on the actual Upper Level Quantitative Reasoning section.

QUANTITATIVE REASONING SECTION

Item Type	Number of Items
Word Problems	18–21
Quantitative Comparisons	14–17
Total Items for Quantitative Reasoning Section	**37**

Of the 37 total items, 32 are scorable items reported on the ISR, and 5 are unscored items that may be used on future versions of the ISEE.

A key aspect of all quantitative reasoning word problems is that all incorrect responses are based on logical errors, not miscalculations or other errors in form. Another feature of these problems is that they may contain irrelevant information. The rationale is twofold. First, in a reasoning item, part of the problem is to sort the relevant from the irrelevant, just as a mathematician or scientist would do. Second, as students take additional tests in the future, such as college admission tests and other tests that include quantitative reasoning items, they will see more and more problems with irrelevant information. In one sense, the ISEE begins to prepare students for this experience.

Reading Comprehension

Texts of various genres are used to assess reading comprehension, e.g., narrative, expository, persuasive, or descriptive texts. Each genre presents features particular to it and may require different reading skills to be engaged to understand and interpret the text's meaning. For example, a persuasive passage will likely require the reader to follow the logic of a set of arguments, contrast counterpoints, and evaluate the opposing points of view. A narrative, on the other hand, may demand attention to detail and the sequencing of events.

Reading comprehension may be affected not only by text type, but also by question type. Questions may ask for straightforward comprehension of what is explicitly stated in the passage, or may demand that the reader be aware of implicit ideas. The reader may need to infer, interpret, analyze, and/or synthesize information in order to arrive at a correct answer to a given question.

All ISEE Reading Comprehension test items are based on passages of varying lengths. For the Upper Level section, passage length varies from 300 to 600 words. The test items that follow each reading passage measure a student's ability relative to Main Idea, Supporting Ideas, Inference, Vocabulary, Organization/Logic, and Tone/Style/Figurative Language, as described in the NCTE strands.

Explanation of Strands in Reading Comprehension Section

- The *Main Idea* items assess the student's ability to look for an overall message, theme, or central idea in the passage or section of the passage.
- The *Supporting Ideas* items assess the student's ability to identify explicit ideas that support the main idea or another important concept found in the text.
- *Inference* items ask the student to draw a conclusion from content not explicitly stated in the text. Inference items may ask the student to compare and contrast ideas, interpret or analyze text, and/or predict subsequent events or outcomes.
- *Vocabulary* items deal with word definitions within the context of the passage, usually in the form of "most nearly means."
- *Organization/Logic* items ask students to identify the sequence, pattern, relationship, structure, or summary of the passage and to identify the major features of different literary genres, including narrative, informational, and instructional.
- *Tone/Style/Figurative Language* items assess the student's understanding of mood, tone, point of view, and figurative language such as simile, metaphor, hyperbole, images, irony, and personification.

At the Upper Level, there are six passages in the Reading Comprehension section, each followed by six questions that relate to the passage.

The following table shows the total number of items in the actual Upper Level Reading Comprehension section.

READING COMPREHENSION SECTION

ISEE Strand	Number of Items Per Strand
Main Idea	3–7
Supporting Ideas	5–11
Inference	6–14
Vocabulary	5–9
Organization/Logic	3–5
Tone/Style/Figurative Language	1–4
Total Items on Reading Comprehension Section	**36**

Of the 36 total items, 30 are scorable items reported on the ISR, and 6 are unscored items that may be used on future versions of the ISEE.

Mathematics Achievement

Mathematics Achievement items conform to the traditional mathematics achievement items that call for the identification and solution of a problem requiring one or more steps in calculation. Based on the strands of the NCTM, the items require calculations ranging from simple addition and subtraction (Lower Level) to second-year algebra (Upper Level). Item formats and rules for generating items are summarized below. The standards used for the Upper Level ISEE are NCTM's standards for grades 8–11 and may be found at www.nctm.org.

- Items measure knowledge of content area and academic skills.
- Items assess what mathematics the student has been taught and how much the student is able to do.
- Incorrect answer choices are based on process errors (e.g., miscalculations, using wrong operations, wrong formulas).
- Items have the following characteristics:
    - They are more concrete than abstract. They require application of standard mathematical rules in standard situations.
    - They require knowledge of terminology.
    - They require knowledge of procedures, as well as concepts.

The following table shows the skill areas and approximate number of questions testing those skill areas for the actual Upper Level Mathematics Achievement section.

MATHEMATICS ACHIEVEMENT SECTION

Skill Areas	Number of Items
Number Sense	5–11
Algebraic Concepts	13–17
Geometry	5–8
Measurement	5–8
Data Analysis and Probability	8–13
Total Items on Mathematics Achievement Section	**47**

Of the 47 total items, 42 are scorable items reported on the ISR, and 5 are unscored items that may be used on future versions of the ISEE.

The Mathematics Achievement section on the Upper Level ISEE has a direct connection to what the student is learning or has learned in mathematics in school. As stated previously, since each level is given to students in more than one grade, it is possible that some of the questions may seem difficult because the student has not yet learned some of the concepts. This is particularly true of the Mathematics Achievement section. But the student's ISEE score is compared *only to students in the same grade who are also applying to independent schools*, students who are probably learning about the same things in school.
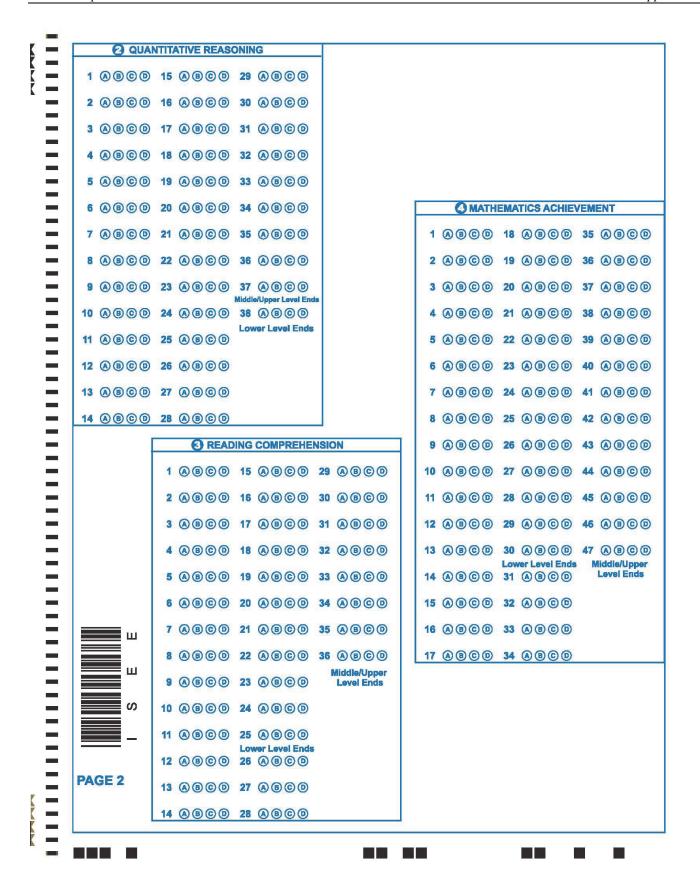
Essay

The essay prompts on the ISEE were created to be consistent with the prompts on previous editions of the ISEE. All prompts are free of bias, global in scope, and representative of a wide variety of topics. The prompts for the Upper Level ask students to write an essay that is of interest and relevant to the experiences of students at this age. The essay will give further insight into what is important to the applicant.

Appendix B
Answer Sheet

Use the answer sheet and pre-lined pages in this appendix for the Practice Test. You may want to photocopy the answer sheet to make it more convenient to use during the Practice Test.

Name:

Test Site:

Room:

ERB | **ISEE®** INDEPENDENT SCHOOL ENTRANCE EXAM

EXAM LEVEL

LOWER Ⓛ
MIDDLE Ⓜ
UPPER Ⓤ

FORM

PLACE THE BARCODE LABEL FROM YOUR TEST BOOKLET HERE.

Administrators: If the barcode label is missing or damaged, write the barcode number in the space above.

MARKING INSTRUCTIONS

- Use a #2 or HB pencil only on pages 1 and 2.
- Use a ballpoint pen for your essay on pages 3 and 4.
- Make dark marks that completely fill the circle.
- Erase cleanly any mark you wish to change.
- Make no stray marks on this form.
- Do not fold or crease this form.

CORRECT MARK   INCORRECT MARKS

ADMINISTRATORS ONLY

TESTING WITH ACCOMMODATIONS   ◯ Yes

Bubble in the first four letters of your last name.

LAST NAME

IDENTIFICATION NUMBER

① VERBAL REASONING

1 Ⓐ Ⓑ Ⓒ Ⓓ	15 Ⓐ Ⓑ Ⓒ Ⓓ	29 Ⓐ Ⓑ Ⓒ Ⓓ
2 Ⓐ Ⓑ Ⓒ Ⓓ	16 Ⓐ Ⓑ Ⓒ Ⓓ	30 Ⓐ Ⓑ Ⓒ Ⓓ
3 Ⓐ Ⓑ Ⓒ Ⓓ	17 Ⓐ Ⓑ Ⓒ Ⓓ	31 Ⓐ Ⓑ Ⓒ Ⓓ
4 Ⓐ Ⓑ Ⓒ Ⓓ	18 Ⓐ Ⓑ Ⓒ Ⓓ	32 Ⓐ Ⓑ Ⓒ Ⓓ
5 Ⓐ Ⓑ Ⓒ Ⓓ	19 Ⓐ Ⓑ Ⓒ Ⓓ	33 Ⓐ Ⓑ Ⓒ Ⓓ
6 Ⓐ Ⓑ Ⓒ Ⓓ	20 Ⓐ Ⓑ Ⓒ Ⓓ	34 Ⓐ Ⓑ Ⓒ Ⓓ

Lower Level Ends

7 Ⓐ Ⓑ Ⓒ Ⓓ	21 Ⓐ Ⓑ Ⓒ Ⓓ	35 Ⓐ Ⓑ Ⓒ Ⓓ
8 Ⓐ Ⓑ Ⓒ Ⓓ	22 Ⓐ Ⓑ Ⓒ Ⓓ	36 Ⓐ Ⓑ Ⓒ Ⓓ
9 Ⓐ Ⓑ Ⓒ Ⓓ	23 Ⓐ Ⓑ Ⓒ Ⓓ	37 Ⓐ Ⓑ Ⓒ Ⓓ
10 Ⓐ Ⓑ Ⓒ Ⓓ	24 Ⓐ Ⓑ Ⓒ Ⓓ	38 Ⓐ Ⓑ Ⓒ Ⓓ
11 Ⓐ Ⓑ Ⓒ Ⓓ	25 Ⓐ Ⓑ Ⓒ Ⓓ	39 Ⓐ Ⓑ Ⓒ Ⓓ
12 Ⓐ Ⓑ Ⓒ Ⓓ	26 Ⓐ Ⓑ Ⓒ Ⓓ	40 Ⓐ Ⓑ Ⓒ Ⓓ

Middle/Upper Level Ends

| 13 Ⓐ Ⓑ Ⓒ Ⓓ | 27 Ⓐ Ⓑ Ⓒ Ⓓ |
| 14 Ⓐ Ⓑ Ⓒ Ⓓ | 28 Ⓐ Ⓑ Ⓒ Ⓓ |

PLEASE DO NOT WRITE IN THIS AREA

❷ QUANTITATIVE REASONING

1 (A)(B)(C)(D)	15 (A)(B)(C)(D)	29 (A)(B)(C)(D)
2 (A)(B)(C)(D)	16 (A)(B)(C)(D)	30 (A)(B)(C)(D)
3 (A)(B)(C)(D)	17 (A)(B)(C)(D)	31 (A)(B)(C)(D)
4 (A)(B)(C)(D)	18 (A)(B)(C)(D)	32 (A)(B)(C)(D)
5 (A)(B)(C)(D)	19 (A)(B)(C)(D)	33 (A)(B)(C)(D)
6 (A)(B)(C)(D)	20 (A)(B)(C)(D)	34 (A)(B)(C)(D)
7 (A)(B)(C)(D)	21 (A)(B)(C)(D)	35 (A)(B)(C)(D)
8 (A)(B)(C)(D)	22 (A)(B)(C)(D)	36 (A)(B)(C)(D)
9 (A)(B)(C)(D)	23 (A)(B)(C)(D)	37 (A)(B)(C)(D)
		Middle/Upper Level Ends
10 (A)(B)(C)(D)	24 (A)(B)(C)(D)	38 (A)(B)(C)(D)
		Lower Level Ends
11 (A)(B)(C)(D)	25 (A)(B)(C)(D)	
12 (A)(B)(C)(D)	26 (A)(B)(C)(D)	
13 (A)(B)(C)(D)	27 (A)(B)(C)(D)	
14 (A)(B)(C)(D)	28 (A)(B)(C)(D)	

❸ READING COMPREHENSION

1 (A)(B)(C)(D)	15 (A)(B)(C)(D)	29 (A)(B)(C)(D)
2 (A)(B)(C)(D)	16 (A)(B)(C)(D)	30 (A)(B)(C)(D)
3 (A)(B)(C)(D)	17 (A)(B)(C)(D)	31 (A)(B)(C)(D)
4 (A)(B)(C)(D)	18 (A)(B)(C)(D)	32 (A)(B)(C)(D)
5 (A)(B)(C)(D)	19 (A)(B)(C)(D)	33 (A)(B)(C)(D)
6 (A)(B)(C)(D)	20 (A)(B)(C)(D)	34 (A)(B)(C)(D)
7 (A)(B)(C)(D)	21 (A)(B)(C)(D)	35 (A)(B)(C)(D)
8 (A)(B)(C)(D)	22 (A)(B)(C)(D)	36 (A)(B)(C)(D)
9 (A)(B)(C)(D)	23 (A)(B)(C)(D)	**Middle/Upper Level Ends**
10 (A)(B)(C)(D)	24 (A)(B)(C)(D)	
11 (A)(B)(C)(D)	25 (A)(B)(C)(D)	
		Lower Level Ends
12 (A)(B)(C)(D)	26 (A)(B)(C)(D)	
13 (A)(B)(C)(D)	27 (A)(B)(C)(D)	
14 (A)(B)(C)(D)	28 (A)(B)(C)(D)	

I S E E

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❹ MATHEMATICS ACHIEVEMENT

1 (A)(B)(C)(D)	18 (A)(B)(C)(D)	35 (A)(B)(C)(D)
2 (A)(B)(C)(D)	19 (A)(B)(C)(D)	36 (A)(B)(C)(D)
3 (A)(B)(C)(D)	20 (A)(B)(C)(D)	37 (A)(B)(C)(D)
4 (A)(B)(C)(D)	21 (A)(B)(C)(D)	38 (A)(B)(C)(D)
5 (A)(B)(C)(D)	22 (A)(B)(C)(D)	39 (A)(B)(C)(D)
6 (A)(B)(C)(D)	23 (A)(B)(C)(D)	40 (A)(B)(C)(D)
7 (A)(B)(C)(D)	24 (A)(B)(C)(D)	41 (A)(B)(C)(D)
8 (A)(B)(C)(D)	25 (A)(B)(C)(D)	42 (A)(B)(C)(D)
9 (A)(B)(C)(D)	26 (A)(B)(C)(D)	43 (A)(B)(C)(D)
10 (A)(B)(C)(D)	27 (A)(B)(C)(D)	44 (A)(B)(C)(D)
11 (A)(B)(C)(D)	28 (A)(B)(C)(D)	45 (A)(B)(C)(D)
12 (A)(B)(C)(D)	29 (A)(B)(C)(D)	46 (A)(B)(C)(D)
13 (A)(B)(C)(D)	30 (A)(B)(C)(D)	47 (A)(B)(C)(D)
	Lower Level Ends	**Middle/Upper Level Ends**
14 (A)(B)(C)(D)	31 (A)(B)(C)(D)	
15 (A)(B)(C)(D)	32 (A)(B)(C)(D)	
16 (A)(B)(C)(D)	33 (A)(B)(C)(D)	
17 (A)(B)(C)(D)	34 (A)(B)(C)(D)	

STUDENT NAME _____ **GRADE APPLYING FOR** _____

Use a blue or black ballpoint pen to write the final draft of your essay on this sheet.

You must write your essay topic in this space.

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Use specific details and examples in your response.

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