

CBEST Description

The CBEST is designed to provide information about basic proficiency in reading, mathematics, and writing. The CBEST Reading and Mathematics sections consist of multiple-choice questions, and the CBEST Writing section contains two essay topics. The number of test questions allotted for each section are as follows:

<i>Section</i>	<i>Number of Questions</i>
Reading	50
Mathematics	50
Writing	2

Reading Section

The Reading section of the CBEST assesses your ability to comprehend written and graphically presented materials. The materials used in the test will vary in difficulty and complexity and are drawn from a variety of fields, such as the social sciences, the humanities, health, and consumer affairs. None of the questions require outside knowledge; all of the questions are related to a particular passage and can be answered on the basis of information given in the passage. Some of the passages are long, consisting of 200 or more words; some are shorter, approximately 100 words; and others are short statements of one or two sentences.

The questions you will be asked will come from two major skill areas: critical analysis and evaluation; and comprehension and research skills.

Critical Analysis and Evaluation. Questions in this skill area require you to analyze and evaluate arguments and structure presented in a reading passage. Some questions may ask you to recognize the style, attitude, persuasive techniques, or opinion of the author. You may also be asked to identify logical assumptions or inconsistencies, or to determine whether facts are relevant to an argument. Approximately 30 percent of the questions in the Reading section are from this skill area.

Specific critical analysis and evaluation skills include:

- identifying the author's attitude toward his or her subject
- identifying the style or tone of a passage

- recognizing the audience that a reading selection addresses
- distinguishing between fact and opinion in a passage
- identifying assumptions underlying statements in a passage
- comparing ideas or information presented in various sections of a passage, chart, or graph
- recognizing statements that strengthen or weaken arguments put forward in a passage
- recognizing implied relationships between ideas in a passage, chart, or graph
- making predictions about the outcome of an event based on information from a passage

Comprehension and Research Skills. This skill area assesses your ability to understand the content of a reading selection. Questions in this skill area may test your ability to identify major points, make inferences, and draw conclusions which accurately reflect the material presented in a reading passage. You may also be asked to identify the meaning of words, phrases, or paragraphs based on the context, syntax, and transitions present in the reading selection. In addition, questions may require you to identify statements that are implied by the information in the passage or that can be logically inferred from the information. Other questions may ask you how to locate specific information or to make conclusions based upon information presented in a table or graph. Approximately

70 percent of the questions in the Reading section are drawn from this skill area.

Specific comprehension and research skills include:

- recognizing the main idea of a passage
- identifying explicit details, facts, ideas, or other information that is provided in support of ideas presented in a passage, chart, or graph
- identifying logical conclusions, interpretations, or generalizations that are supported by information presented in a passage, chart, or graph
- identifying accurate paraphrases or summaries of ideas in a reading selection
- making inferences and recognizing implications based upon information or ideas presented in a passage, chart, or graph
- recognizing the primary purpose for which a passage was written, or the purpose served by the author's inclusion of particular information in a passage
- selecting the most appropriate definition of phrase, word, or a figurative expression, given its context in a passage
- applying information or ideas to situations not mentioned in the passage
- arranging the ideas in a reading selection into an outline or another form of graphic organization
- identifying logical conclusions, generalizations, or implied relationships that are supported by information in a table or graph
- identifying how a passage is organized

The skills above may be sampled on a given form, since not all skills may be tested on each form.

Mathematics Section

This portion of the test is intended to assess your cumulative knowledge of mathematics from having studied it all through elementary school, in high school, and possibly in college. The questions are selected to test the kinds of mathematics that all teachers may need whether or not they are assigned to teach mathematics. Three broad skill areas are covered.

Estimation, Measurement, and Statistical Principles. Questions in this category test your ability to understand and apply mathematical information. You may be asked, for example, to estimate results or to perform arithmetic operations using basic statistical data. Some questions will ask you to measure length, perimeter, and volume, and to estimate time. Other questions will ask you to predict likely outcomes based on principles of probability. Questions from this skill area represent approximately 30% of the test.

Computation and Problem Solving. Questions in this category test your ability to solve fairly straightforward problems. Questions may require you to add, subtract, multiply, and divide

with whole numbers, fractions, decimals, and percentages. Other questions require you to use basic algebra to solve them. You may be asked to identify or perform the operations (such as addition or multiplication) needed to solve a practical math problem, to recognize a problem that can or cannot be solved using some given information, or to recognize alternative methods of solving a problem. Approximately 45% of the questions on the test are drawn from this skill area.

Numerical and Graphic Relationships. Questions in this skill area test your ability to use numerical information from tables and graphs and to recognize and interpret relationships among numbers. You may be required to use rounding rules when solving problems. Questions may also test your ability to identify a missing entry from a table, to recognize the position of numbers in relation to each other (e.g., -7 is less than -4), or to recognize relationships in numerical data (e.g., compute a percentage change from one year to the next). Questions in this skill area represent approximately 25% of the test.

Very few questions test straight computation; instead, computation is embedded in applications such as measurement, the calculation of interest, and so forth. Some of the mathematical concepts with which you should be familiar before taking the Mathematics test are listed below.

- odd and even numbers
- positive numbers
- percent
- average
- ratio and proportion
- ordering numbers
- place value

- how and when to add, subtract, multiply, and divide integers, fractions, and decimals
- area (rectangle, square)
- perimeter
- circumference
- volume (cube, rectangular solid)
- graphs
- simplifying algebraic expressions
- factoring
- evaluating given formulas
- simple probability
- algebra word problems

Writing Section

The Writing section is designed to test your ability to write effectively in response to assigned topics. All examinees who take the test at the same CBEST administration write on the same two topics. One of the topics asks you to analyze a situation or statement; the other asks you to write about a personal experience. You are not expected to demonstrate specialized knowledge, such as an understanding of the history of education or of particular theories of learning.

You should be sure to write only on the topics in the test booklet, to address all the points presented in the topics, and to support generalizations with specific examples. Before you begin writing, read each topic and organize your thoughts carefully. While you are taking the test, allocate your time carefully so that you will have enough time to plan and write on both topics. Be sure to use a No. 2 (soft lead) pencil to write your essays.

Your written response should be your original work, written in your own words, and should not be copied or paraphrased from some other work.

Experienced educators will read and evaluate your writing holistically (that is, with a single score for overall quality) under carefully controlled conditions designed to ensure fair and reliable scoring. They will assess your writing on criteria such as the quality of insight or central idea; evidence that you know the audience for whom the piece is being written; clarity; consistency of point of view; cohesiveness; strength and logic of supporting information; rhetorical force; appropriateness of diction and syntax; and correctness of mechanics and usage.

Each reader will, without seeing any other evaluations of your essay, score your writing as Pass, Marginal Pass, Marginal Fail, or Fail using the following scoring guide. For each score, this guide describes the characteristics of an essay receiving that score.

CBEST Writing Score Scale

Score	Score Point Description
4 (pass)	A "4" is a well-formed writing sample that effectively communicates a whole message to the specified audience. I. The writer clearly presents a central idea and/or point of view and maintains focus on that topic; the response is well reasoned. II. Ideas or points of discussion are logically arranged, and their meaning is clearly communicated. III. Generalizations and assertions are well supported with relevant, specific, and detailed development. IV. Choice of words is precise; usage is careful and accurate. V. The writer composes sentences of syntactic complexity and variety and constructs coherent paragraphs, although the response may contain minor flaws in mechanical conventions. VI. The response completely addresses the topic and uses language and style appropriate for the given audience and purpose.
3 (marginal pass)	A "3" is an adequately formed writing sample that communicates a message to the specified audience. I. The writer presents a central idea and/or point of view, and the focus is generally maintained; the response is adequately reasoned. II. Organization of ideas is generally clear and effective, and the meaning is generally clear. III. Generalizations and assertions are adequately supported, although perhaps unevenly. IV. Word choice and usage are adequate; some errors exist but do not impede meaning. V. The writer's response may have errors in paragraphing, sentence structure, and/or mechanical conventions, but they are neither serious nor frequent enough to distract or confuse the reader. VI. The response may not fully address the topic (i.e., one of the tasks in the assignment may be neglected or may be vaguely or incompletely addressed, but language and style are appropriate for the given audience and purpose).
2 (marginal fail)	A "2" is a partially formed writing sample that attempts to communicate a message to the specified audience. I. The writer may state a central idea and/or point of view but loses focus on that idea; the response is simplistically reasoned. II. Organization of ideas may be evident, but is largely ineffective, and the response is generally unclear. III. Generalizations and assertions are only partially supported; the response may contain irrelevant, insufficient, or imprecise details. IV. Word choice and usage are generally imprecise and distracting. V. The writer's response may have distracting errors in paragraphing, sentence structure, mechanical conventions, and/or dependence upon short, choppy sentences with minimal modification. VI. The response incompletely addresses most tasks of the assignment and/or inadequately uses language and/or style appropriate for the given audience and purpose.
1 (fail)	A "1" is an inadequately formed writing sample that fails to communicate a message to the specified audience. I. The writer fails to state and/or to remain focused on a central idea and/or point of view; the response lacks coherence and reason. II. Organization of ideas is ineffective and seriously flawed; meaning is unclear throughout. III. Generalizations and assertions are not supported or are severely underdeveloped; the presentation of details is confused. IV. Word choice and usage are largely imprecise, and there are severe distracting errors. V. The writer commits serious and numerous errors in paragraphing, sentence structure, and/or mechanical conventions. VI. The response demonstrates little or no understanding of any of the assignment's tasks; language and style may be inappropriate for audience and purpose.

Essays that do not meet the passing standard are scored diagnostically after holistic scoring is completed. The diagnostic scoring provides feedback about the weaknesses exhibited in each essay that did not meet the passing standard. The following written performance characteristics, which are incorporated in the CBEST Writing Score Scale, are evaluated during diagnostic scoring.

- I. *Rhetorical Force*: the clarity with which the central idea or point of view is stated and maintained; the coherence of the discussion and the quality of the writer's reasoning
- II. *Organization*: the clarity of the writing and the logical sequence of the writer's ideas
- III. *Support and Development*: the relevance, depth, and specificity of supporting information
- IV. *Usage*: the extent to which the writing shows care and precision in word choice
- V. *Structure and Conventions*: the extent to which the writing is free of errors in syntax, paragraph structure, sentence structure, and mechanics (e.g., spelling, punctuation, and capitalization)
- VI. *Appropriateness*: the extent to which the writer addresses the topic and uses language and style appropriate to the given audience and purpose

Sample Test Questions

(The answer key can be found on page 56.)

SECTION I: TEST of READING

Directions: Each statement or passage in this test is followed by a question or questions based on its content. After reading a statement or passage, choose the best answer to each question from among the five choices given. Answer all questions following a statement or passage on the basis of what is stated or implied in that statement or passage. Be sure to mark all your answers in the Reading section of your answer document.

1. The calotype photographic process was patented in England and the United States; the daguerreotype photographic process was patented only in England. The necessary licenses to make calotypes were costly; for Americans the daguerreotype was free. Thus, commercial common sense made the American calotype a rarity.

Based on the information in the passage above, which of the following best explains why "the American calotype" was "a rarity" (line 4)?

- A. American photographers had found that daguerreotypes sold more successfully in the United States than did calotypes.
- B. American photographers preferred to use a photographic process that was well known in the United States rather than one that was known only in England.
- C. Americans had failed to obtain a patent for calotypes in the United States; they therefore were not permitted to make calotypes.
- D. In the United States it was necessary to purchase an expensive license in order to make the patented calotypes, but no license was needed to make the unpatented daguerreotypes.
- E. In the United States it was much more expensive to obtain a patent than in England; therefore, daguerreotypes were not patented in the United States, while calotypes were.

Read the passage below; then answer the two questions that follow.

The proposition that some things are true for me and others are true for you is appealing only so long as the discussion remains abstract. If you are riding in a car and you are of the opinion that it is heading for a cliff, but the driver does not share this opinion, it is doubtful that you will be comforted by the idea that some things are true for you and other things true for the driver.

2. It can be inferred from the passage that the author believes that the reaction of the passenger to the driver's opinion about where the car is heading is most likely to be one of:
 - A. amusement.
 - B. belittlement.
 - C. calm.
 - D. distress.
 - E. boredom.
3. The method used by the author to make the point about the "proposition" (line 1) is to:
 - A. quote authorities.
 - B. develop an analogy.
 - C. present an extreme case.
 - D. offer newly discovered evidence.
 - E. refer to a past experience.

4. The Great Depression of the 1930's in the United States accelerated a trend in the field of education already underway—the rise in educational standards for teachers. The difficulty of finding jobs encouraged prospective teachers to stay in school longer; school districts could now insist that teachers have a college degree, often without raising salaries or improving working conditions.

Based on the information in the passage, which of the following is a true statement about trends in education during the Great Depression in the United States?

- A. College degree programs increased their requirements.
- B. Standards of education for teachers rose because jobs were scarce.
- C. School districts encouraged teachers to accept lower salaries.
- D. Prospective teachers insisted on improved working conditions.
- E. Working conditions declined as educational standards increased.

5. After touring the plains toward the close of the cowboy era, journalist Richard Harding Davis observed, "The inhabited part of a ranch, the part of it on which the owners live, bears about the same proportion to the rest of the ranch as a lighthouse does to the ocean around it."

Based on Richard Harding Davis's observation, which of the following can be inferred about a ranch toward the close of the cowboy era?

- A. Most of a ranch was uninhabited by its owners.
- B. The size of a ranch rivaled the size of an ocean.
- C. Inhabitants of a ranch typically lived in privacy and seclusion.
- D. The working area around a ranch was uninhabitable by humans.
- E. The inhabitants of a ranch, like those of a lighthouse, should be viewed as caretakers.

Read the passage below; then answer the four questions that follow.

- (5) In California, gold-bearing gravels were sometimes found far from any source of water to wash them in, and the gravel from such "dry diggin's" had to be hauled to the nearest stream. It was easier to bring water to the gravel. However, this solution conflicted with the common-law doctrine of riparian rights, which prohibited diverting water from a stream (save for household consumption) unless it was returned to its source undiminished. The miners therefore evolved their own doctrine of "appropriate and beneficial use," which permitted water to be diverted from its course for use elsewhere without having to be returned to the original stream. It solved the miners' problems and became the basis for the California water laws that permit irrigation.

6. According to the passage, "dry diggin's" were:
- A. mines whose gold had been exhausted.
 - B. dumps where miners could put gravel from their mines.
 - C. depleted sources of the water that miners used for washing gravel.
 - D. places where miners found gold but no water.
 - E. water sources from which the water had been diverted.
7. According to the passage, the common-law doctrine of riparian rights permits the diversion of water when the:
- A. same amount of water is returned to the body of water from which it was taken.
 - B. same amount of diverted water is returned to any naturally occurring body of water.
 - C. diverted water is used for mining.
 - D. diverted water is used for irrigation.
 - E. diverted water is used for an "appropriate and beneficial use."

8. The passage implies that the diversion of water for irrigation and for gold mining is:

- A. a special form of domestic consumption.
- B. unprofitable except when performed on a large scale.
- C. an activity permitted under the common-law doctrine of riparian rights.
- D. permitted in states other than California.
- E. considered an appropriate and beneficial use of water in California.

9. The passage suggests which of the following about the evolution of laws?

- A. Laws with far-reaching application can evolve from the specific concerns of special interest groups.
- B. Laws that have been in effect for many years are seldom changed.
- C. Laws are seldom changed unless varied groups make their specific objections known to legislators.
- D. Laws based in common-law doctrine are generally impracticable and difficult to change.
- E. Laws that contradict each other can often motivate legislative change.

Read the passage below; then answer the four questions that follow.

Some Africans who lived 1,600 years ago were protected against disease by natural antibiotics in their food. This unexpected discovery was made accidentally by a student learning to prepare bone sections for microscopic observation. She happened to use the only microscope available at the time, a fluorescing microscope used to identify samples by shining ultraviolet light on them. Bands of yellow green, characteristic of the antibiotic tetracycline, glowed on her samples.

The bone, it turned out, came from mummified remains from a Nubian cemetery in the Sudan and dated from between A.D. 350 and A.D. 550. Apparently the tetracycline got into the Nubians' diet by accident, through *Streptomyces*, a bacterium that manufactures tetracycline and makes up more than half of the bacteria in Nubian soils. Researchers believe it grew on grain stored at the bottom of mud bins.

Probably the Nubians used such contaminated grain only during famines; tetracycline imparts a bitter taste and would otherwise be avoided. Since the drug is deposited only on actively growing bone surfaces, banded patterns on bone samples support the theory that the antibiotic was only an occasional part of the Nubians' diet. Struck by periodic famine, the Nubians should have been plagued by infectious diseases, but studies of scar tissue in the bone samples indicate a very low incidence of such disease. Surprisingly, tetracycline levels found in the bone samples equal levels prescribed by modern doctors.

10. The findings discussed in the passage could most logically be used by a scientist writing a book on which of the following?

- A. the use of drugs in ancient medicine
- B. methods of embalming among ancient peoples
- C. the diets of ancient peoples
- D. the causes of epidemics of infectious diseases
- E. the long-term effects of the use of antibiotics

11. According to the passage, the Nubians benefited from tetracycline because it helped to:

- A. ward off famine.
- B. purify food stuffs.
- C. prevent infectious disease.
- D. preserve bone tissue.
- E. heal bone fractures.

12. According to the passage, the low incidence of infectious diseases among the Nubians has been established by:

- A. written historical records from between A.D. 350 and A.D. 550.
- B. the discovery of mummified remains of many elderly persons.
- C. the levels of tetracycline found in the Nubian bone samples.
- D. studies of scar tissue in the Nubian bone samples.
- E. studies of genetic materials in the mummified remains.

13. According to the passage, which of the following is a true statement regarding *Streptomyces*?

- A. It makes up an insignificant part of the Nubian soils.
- B. It occurs only in contaminated food supplies.
- C. It was a regular part of the Nubians' diet.
- D. It is a common cause of food poisoning.
- E. It is a natural source of the antibiotic tetracycline.

14. People who run for the presidency of the United States are amateurs; there is no way of becoming a professional at running for the office. And all of the candidates, whether they win or lose, are forever altered in spirit and character by the ordeal.

Which of the following restates an idea found in the passage above?

- A. The experience of running for the presidency makes one a professional.
- B. Only amateurs are likely to run for the presidency.
- C. The outcome of a presidential race is determined by the candidates' characters.
- D. Successful presidential candidates are characterized by political professionalism.
- E. Running for the presidency changes the character of the candidate.

15. All fruit juices contain the sugar fructose, and there is no doubt that some kinds of sugar are harmful.

Which of the following can be correctly inferred from the statement above?

- A. All fruit juices are harmful.
- B. Some, but not all, fruit juices are harmful.
- C. Grapefruit juice does not contain any sugar.
- D. Fruit juices are more harmful than vegetable juices.
- E. Orange juice contains at least one kind of sugar.

Read the passage below; then answer the three questions that follow.

The idea that the computer revolution will cause schools to disappear ignores the crucial fact that groups of people do things that individuals in isolation do not do. The presence of other people is invigorating—even in a classroom. Teachers should take advantage of this fact. Students who are forced to be quiet all the time might as well be in individual carrels, learning by means of a computer.

16. It can be inferred from the passage that the author considers the idea that computers will cause schools to disappear to be:

- A. new and revolutionary.
- B. diminishing in popularity.
- C. ethically and politically dangerous.
- D. open to question.
- E. susceptible to several interpretations.

18. It can be inferred from the passage that the author would consider the use of a computer by a student in his or her own carrel an experience that is:

- A. invigorating.
- B. soothing.
- C. limiting.
- D. daunting.
- E. misleading.

17. The passage suggests that the author would be most likely to approve of which of the following actions by a teacher?

- A. the instigation of frequent parent-teacher conferences
- B. the supplementing of a lecture with slides and other visual materials
- C. the assignment of individual students to their own computers for most of a class period
- D. the encouragement of debate among the members of the class
- E. the use, whenever possible, of verbal praise for student performance

Read the passage below; then answer the two questions that follow.

- (5) Antislavery fiction and poetry first appeared in North American magazines during the late 1770's. The misery of slaves' lives in the New World was contrasted in these pieces with an "idyllic and pastoral" life in Africa. The African environment itself was rarely described, primarily because few of the authors knew much about it. Instead, they gave unusual names to their characters and made passing reference to distant places (notably the Gold Coast) to provide an air of authenticity. In fact, few of the authors were themselves Black; one remarkable exception was ex-slave Phillis Wheatley, whose lyric verse was published in Boston magazines in the 1770's.

19. The author of the passage puts the words "idyllic and pastoral" in quotation marks in line 3 most probably in order to:
- A. emphasize the difference between life in Africa and life in the New World.
 - B. suggest that the depiction of life in Africa appearing in most antislavery fiction and poetry was inaccurate.
 - C. more fully describe African environments and cultures.
 - D. give an example of the style of most antislavery fiction and poetry.
 - E. emphasize the originality of applying such adjectives to African life.
20. Which of the following can best be inferred about the majority of the authors of the antislavery fiction and poetry described in the passage?
- A. Many of them were ex-slaves.
 - B. They were not experienced writers.
 - C. They had not lived in the southern United States.
 - D. They had never been to Africa.
 - E. Most of their work described landscape instead of characters.

SECTION II: TEST of MATHEMATICS

Directions: Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the one that is best in each case. Be sure to mark all of your answers in the Mathematics section of your answer document.

The following information is for your reference in solving some of the problems.

Circle of radius r : Area = πr^2 , Circumference = $2\pi r$

The number of degrees of arc in a circle is 360.

The measure in degrees of a straight angle is 180.

Definitions of symbols:

= is equal to

$\neq$ is unequal to

< is less than

> is greater than

$\leq$ is less than or equal to

$\geq$ is greater than or equal to

$\parallel$ is parallel to

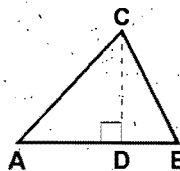
$\perp$ is perpendicular to

Triangle: The sum of the measures in degrees of the angles of a triangle is 180.

If $\angle CDA$ is a right angle, then

$$(1) \text{ area of } \triangle ABC = \frac{AB \times CD}{2}$$

$$(2) AC^2 = AD^2 + DC^2$$



Note: Figures that accompany problems in this test are intended to provide information useful in solving the problems. They are drawn as accurately as possible EXCEPT when it is stated in a specific problem that its figure is not drawn to scale. All figures lie in a plane unless otherwise indicated. All numbers used are real numbers.

21. Amy drinks $1\frac{1}{2}$ cups of milk three times a day. At this rate, how many cups of milk will she drink in one week?

A. $4\frac{1}{2}$
B. $7\frac{1}{2}$
C. $10\frac{1}{2}$
D. $21\frac{1}{2}$
E. $31\frac{1}{2}$

22. Jack worked for several days and earned \$290.50. If his average daily wage was \$41.50, how many days did he work?

A. five
B. six
C. seven
D. eight
E. nine

23. In an election for club president, Sari received 70% of the votes. If her opponent received the remaining 21 votes, how many people voted in the election?

A. 91
B. 70
C. 63
D. 49
E. 30

24. Which of the following methods could be used to solve the problem below?

The moon is about 238,000 miles from the earth, and the sun is about 93,000,000 miles from the earth. The sun is about how many times as far from the earth as the moon is?

- A. Multiply 238,000 by 93,000,000.
 - B. Divide 93,000,000 by 238,000.
 - C. Add 238,000 and 93,000,000.
 - D. Subtract 238,000 from 93,000,000.
 - E. Divide 238,000 by 93,000,000.
25. Of the following fractions, which is closest in value to 0.35?

- A. $\frac{3}{5}$
- B. $\frac{1}{2}$
- C. $\frac{1}{5}$
- D. $\frac{1}{4}$
- E. $\frac{1}{3}$

26. The numbers 4, 5, and 6 have which factors in common?

- A. 1 only
- B. 2 only
- C. 2 and 5 only
- D. 1, 4, 5, and 6 only
- E. 1, 2, 3, 4, 5, and 6

27. Of the following, which is the best estimate of $\sqrt{2605}$?

- A. 1300
- B. 500
- C. 60
- D. 50
- E. 26

28. Alicia's gross weekly salary is \$412.50. If 2% of this salary is deducted for state taxes and 8% is deducted for benefits, which of the following is the closest estimate of the total amount, in dollars, of these deductions?

- A. $(0.02)(400) + (0.08)(400)$
- B. $(0.02)(420) + (0.08)(420)$
- C. $(0.10)(410)$
- D. $(0.16)(410)$
- E. $(0.16)(420)$

29. A teacher wishes to cut a strip of paper into two parts with lengths in a ratio of 2 to 4. If the strip is 18 inches long, what should be the length, in inches, of the longer strip?

- A. 3
- B. $4\frac{1}{2}$
- C. 9
- D. 12
- E. 15

30. If a child was born on September 30, 1976, then, to the nearest month, how old was that child on November 1, 1984?

- A. 85 months
- B. 86 months
- C. 97 months
- D. 98 months
- E. 99 months

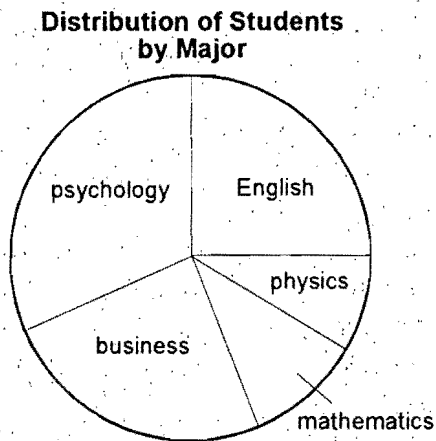
31. An airport shuttle bus can hold, at most, 20 passengers per trip. What is the least number of trips to town that the bus must make to transport 90 passengers from the airport to town?

- A. $3\frac{1}{2}$
- B. 4
- C. $4\frac{1}{2}$
- D. 5
- E. 6

32. A traffic survey showed that there was one van pool for every 4 private cars on the highway. At this rate, how many van pools are on the highway for every 300 private cars?

- A. 50
- B. 60
- C. 75
- D. 100
- E. 1200

33. The circle graph below shows the distribution of a group of students with respect to their college major. Which major accounted for approximately $\frac{1}{3}$ of the students in the group?



- A. psychology
 - B. English
 - C. physics
 - D. mathematics
 - E. business
34. Of the five types of dogs listed below, which type eats the LEAST amount of food?

Collies eat more than basset hounds. Boxers eat more than collies. Beagles eat more than basset hounds, but less than collies. Boxers eat less than dalmatians.

- A. collie
- B. basset hound
- C. boxer
- D. beagle
- E. dalmatian

35. Which of the numbers in the problem below is (are) needed to solve the problem?

A certain school has 32 classrooms and 40 teachers. If the student to teacher ratio is 25:1, how many students are there?

- A. 25 only
 - B. 25 and 32 only
 - C. 1, 25, and 40 only
 - D. 1, 32, and 40 only
 - E. 1, 25, 32, and 40
36. Which of the following questions can be answered on the basis of the information given below?

Juan read a certain book in exactly 8 hours. The average number of words per page was 270 and the number of pages was 392.

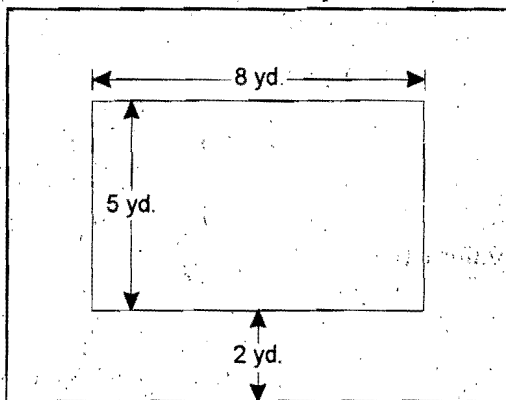
- A. How long would it take Juan to read 2 books?
- B. How long did it take Juan to read the first 100 pages?
- C. How many pages did Juan read the first hour?
- D. What is the average number of words per minute at which Juan read this book?
- E. What is the average number of lines per page in the book that Juan read?

37. What additional information, if any, is needed to solve the problem below?

Andy purchased several shirts. Some of the shirts cost \$15 each and the remaining shirts cost \$18 each. What was the total cost of the shirts?

- A. the prices of the shirts
- B. the average price of the shirts
- C. the total number of shirts purchased
- D. the number of shirts purchased at each price
- E. no additional information is needed

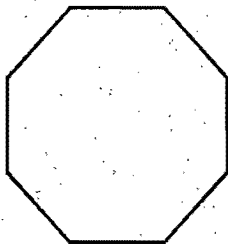
38. A rectangular flower garden is surrounded by a path 2 yards wide, as shown below. What is the area, in square yards, of the path?



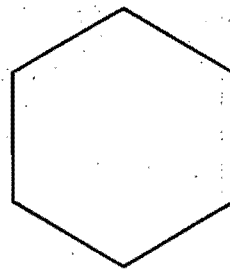
- A. 42
- B. 52
- C. 68
- D. 84
- E. 108

39. Which of the following figures does NOT have at least one pair of parallel sides?

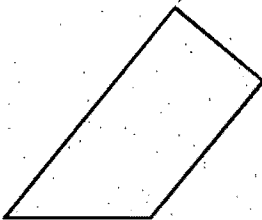
A.



B.



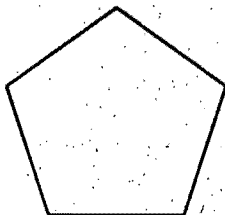
C.



D.



E.



40. Which of the following calculations is NOT equivalent to 18×25 ?

A. 9×50

B. $(10 + 8) \times (20 + 5)$

C. $(10 \times 25) + (8 \times 25)$

D. $(10 + 20) \times (8 + 5)$

E. $(18 \times 20) + (18 \times 5)$

Sample Questions: Answer Key

Reading				Mathematics			
1.	D	11.	C	21.	E	31.	D
2.	D	12.	D	22.	C	32.	C
3.	C	13.	E	23.	B	33.	A
4.	B	14.	E	24.	B	34.	B
5.	A	15.	E	25.	E	35.	C
6.	D	16.	D	26.	A	36.	D
7.	A	17.	D	27.	D	37.	D
8.	E	18.	C	28.	C	38.	C
9.	A	19.	B	29.	D	39.	E
10.	C	20.	D	30.	C	40.	D

SECTION III: TEST of WRITING

Sample Topics and Candidate Essays

Directions: The writing section consists of two essay topics. Be sure to write about the assigned topics. Essays on topics of your own choice will not be acceptable. Since both topics are weighted equally in scoring, you should plan to spend about the same amount of time on each topic.

The essay topics in this test are designed to give you an opportunity to demonstrate your ability to write effectively. Spend some time considering each topic and organizing your thoughts before you begin writing. For each essay, be sure to address all parts of the topic, to support generalizations with specific examples, and to use multiple paragraphs.

You may use any blank space provided in this test booklet to make notes or to prepare a rough draft for each essay. However, your score will be based solely on the versions of your essays written in the space provided in your answer document. Please write as neatly and legibly as possible. To ensure that you have enough space for your entire essay, please do **NOT** skip lines; do **NOT** write in excessively large letters; and do **NOT** leave wide margins.

Your written response should be your original work, written in your own words, and should not be copied or paraphrased from some other work.

Topic 1

Ernest Hemingway once commented, "As you get older, it is harder to have heroes, but it is sort of necessary." To what extent do you agree or disagree with his observation? Support your opinion with specific examples.

Topic 2

Most students have had some type of difficulty in one course or another. Difficulties stem from various sources, such as teacher-student conflicts or lack of interest in the subject field.

Write about one such situation you faced either as a student or as a teacher. Identify the type of class and explain whether you were able to resolve the problem. If so, how was it resolved? If not, what was the outcome and why?

Topic 1 (Pass)

I agree quite strongly with Hemingway that age brings increasing difficulty in finding heroes, but that one still needs them. As skepticism increases, the number of people one can admire or hope to emulate decreases. An older person, having more experience and having acquired, one hopes, a more objective and realistic assessment of other people, tends to see more flaws than a younger person might. On the other hand, the older person is likely to recognize and value certain qualities such as careful reasoning, empathy, and kindness that a younger person might overlook or consider irrelevant. (Yet another problem is that a person's heroes tend to be older than herself, and the number of possibilities dwindles, but that has to be accepted!)

Thus, I believe that men and women of all ages need heroes. As a woman, though I find that heroes—heroines, actually—are especially important because the role of a woman is constantly being redefined. Women today are frequently expected to not just to "have it all" but to do it all: maintain successful careers; develop and nurture the kind of relationships with others that they often value so highly; and, in many cases, contribute their financial and emotional resources to the raising of a family as well. Idolizing other women can be therapeutic, eye-opening and inspirational. One can see what remarkable women have done, how they've done it and what they have to say about it all.

For example, I have always admired Maya Angelou's ability to integrate her personal and her professional life. And Toni Morrison, in works such as *The Bluest Eye* and *Beloved*, creates intelligent, honest fictional characters and provides a vast outpouring of thought-provoking and challenging ideas. The fact that both of these women are both female and black makes them the more admirable to me.

The older I get, the more important these "'Hero' women" become for me. Such people help one to keep on trying, both by exhortation and example. I like to think I can at least try to follow their lead; they are, indeed, "sort of necessary."

Topic 1 (Marginal Pass)

I agree with Ernest Hemingway that having heroes is necessary. For the young heroes can show direction and provide examples for how life can be and the opportunities that are available for those who try. For the older person heroes can provide different options.

As one gets older illusions in life are replaced with hard realities. For example how can one cope with illness, the loss of close friends, and the many other problems that occur. Heroes for these people can give hope and courage.

A hero does not have to be a famous personality like Sister Teresa, Michael Jordan or Madonna; a hero can be a coworker, a friend who has made the best of a sticky situation, or anyone who has survived an ordeal and can demonstrate the opportunities that can come out of crisis.

Besides support, heroes can provide examples of options that are available. Often when there are trying times a person could think what would my hero do in this situation. How would they solve this problem. This can enable a person to make a tragedy into a victory by opening new options.

Heroes are very important whether you're young or old because they can give hope, inspiration and support in trying times and enable you to go on through life and turn your tragedies into triumphs.

Topic 1 (Marginal Fail)

Heroes are for the young and not the old. As you get older there is no longer a need for heroes. I disagree with Ernest Hemingway's comment "As you get older, it is harder to have heroes, but it is sort of necessary."

When you are young everyone is your hero, but most little kids think of superstars as their heroes. Children often have superstars as heroes, but they are not the only heroes. Children look up to anybody who can do something really great, according to them.

As you grow older the need for a Heroe disappears. As you get older you realize that your hero was somebody you want to be just like. Now that you are older you are not

interested in fighting crime as bat Women or Man. Now you are older you see things how they really are not how they seem.

I think its important to stop chasing heroes and get on with your life.

Heroes are somebody who is greater than you and older than you. If we always have heroes then we can never be the hero.

Therefore, I disagree with having heroes as you get older. When you are older I think you should be the hero not someone else.

Topic 1 (Fail)

I believe everyone has heroes. But as you grow older your heroes become fewer in that they are more important. As a youngster a hero may be ninga, cat woman or Dick Tracy. As an adolesent heroes tend to be toward t.v. stars or musicians. As an adult, politicians or soldiers or maybe even a tremendous sports star, can be a hero. These are just as necessary as the others. Heroes play the "perfect" role model. We use them throughout our lives as goals we set to strive for.

Topic 2 (Pass)

If my seventh grade history teacher had known what was in store for him that year, I am sure he would not have chosen the teaching profession. I took an immediate dislike for this tall and gangly character. Why? There was really no reason except that he did not fit my image of a history teacher. He was young, knowledgeable, and eager to please—perhaps a bit too eager and that is where our clash began.

Each day Mr. Simms would strut across the room making ridiculous analogies, crowing out quotes from Abraham Lincoln and making what I thought was a complete fool of himself. It must have been this kind of annoying behavior that made me suddenly decide to start antagonizing this bewildered fellow. I interrogated him; I found faults with his reasoning; I publically announced contradictory details. I wanted answers and he couldn't give them.

Because Mr. Simms was an inexperienced teacher and did not reprimand my rudeness, I continued my torture tactics. I began antagonizing this poor man in subtle ways.

While all the other students were obediently paying attention and taking notes, I would sit and stare at a point in the air just above Mr. Simms' left temple. Some days I would sit bolt upright and pretend to be falling asleep, but when called on I would ask a question or make a point that was undeniably relevant to the discussion or lecture that was underway. Then too, I would come to class just late enough to create a slight distraction, then I would noisily turn the pages in my book and notebook, as if desperately searching for my place.

My very best trick, however, was the Friday I handed in the midterm paper. We were studying the Spanish-American War, and he was always trying to spice up his lectures by breaking into foreign languages, so I decided to write my paper in Spanish. "Let's see what he does with this one," I said to myself. It must have fazed him, but he didn't let on. Mr. Simms commented on my paper in Spanish too difficult for me to understand, then at the bottom wrote "THRILLED TO SEE YOU ENGAGED BY THE ASSIGNMENT. A-." Had I had chalked up another victory? I wasn't so sure.

Maybe I realized antagonizing Mr. Simms wasn't fun anymore. Maybe I realized I was the loser in the end. The day after I got the paper back, I suddenly became "engaged" by history class. I stopped fooling around, started paying attention in class, and called a halt to the needling of Mr. Simms, a man who, I decided, was not so bad after all.

Topic 2 (Marginal Pass)

During seventh grade students were being streamed into different classroom. We were divided up into different groups for english classes at different levels. Maybe because I was always quiet and well-behaved, I was put in an advanced class.

This was very scary for me for a number of reasons. First, the teachers did not tell me why I was being placed in this higher Class. Second, I had always had trouble with keeping up in reading but never said anything. Suddenly I found myself being placed in a class with the best students in the school.

The way I handled this situation was by bluffing. I would have one of my friends check over my papers to reduce the worst errors so

the teacher never knew how much help I needed. If we were going to be tested on anything, I would talk to someone who had read it in order to get the information.

Because I was able to get by talking to my freinds, the teacher never caught on to the fact that I needed help. I know now that it would have been smarter to have been caught that to continue to fool everyone.

Topic 2 (Marginal Fail)

The class situation which presented me with the greatist problem was a seminar on the History of Technology. The problem was that I was not prepared to participate actively in class because of a very heavy course load. This situation arose because none of the required classes for my major were available before this. This problem was resolved through attending class.

The class was held twice a week for two hours. I never missed a class. Before each class I did the required reading and completed all written assignments. The effort to complete the course was concidered enough to pass.

Topic 2 (Fail)

Learning takes a long time. It requires good motivation the part of the teacher and concentration and good attitude on the part of students. In such a course like Calculus, the students find it very difficult sometimes because the course is abstract coupled with calculations. Students find it very strange and later find the course tiring. Teacher-student conflicts can be started over students boredom or lack interest in subject field.

A teacher should have good training.