

Chapter 22

Middle Level

ISEE Practice Test



Middle Level Practice Test

Be sure each mark *completely* fills the answer space.

SECTION 1

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

SECTION 2

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

SECTION 3

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

SECTION 4

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

Section 1

Verbal Reasoning

40 Questions**Time: 20 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:**TRUTH:**

- (A) dread
- (B) marriage
- (C) reality
- (D) relevance

Sample Answer (A) (B) (C) (D)

Go on to the next page. →

Part Two – Sentence Completion

Each question in Part Two is made up of a sentence with one blank. Each blank indicates that a word is missing. The sentence is followed by four answer choices. Select the word that best completes the meaning of the sentence as a whole.

SAMPLE QUESTIONS:

The question was so ----- that the best student in class got it wrong.

- (A) coarse
- (B) difficult
- (C) funny
- (D) long

Sample Answer

(A) ● (C) (D)

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



Part One – Synonyms

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

1. UNUSUAL:

- (A) friendly
- (B) happy
- (C) new
- (D) peculiar

2. ASSISTANCE:

- (A) call
- (B) disability
- (C) service
- (D) teaching

3. REALITY:

- (A) dream
- (B) fact
- (C) rarity
- (D) security

4. DIMINUTION:

- (A) assessment
- (B) leniency
- (C) reduction
- (D) restitution

5. CONTENTED:

- (A) diplomatic
- (B) disgusted
- (C) mammoth
- (D) satisfied

6. BOUND:

- (A) badgered
- (B) confused
- (C) obliged
- (D) relieved

7. FALTER:

- (A) drop
- (B) hesitate
- (C) question
- (D) replenish

8. CONTAINED:

- (A) eliminated
- (B) held
- (C) raging
- (D) wooden

9. REVERE:

- (A) disdain
- (B) esteem
- (C) faith
- (D) reliance

10. DILIGENT:

- (A) defensive
- (B) hardworking
- (C) lazy
- (D) obsessive

Go on to the next page. →

11. DETRIMENTAL:
(A) harmful
(B) knowledgeable
(C) tentative
(D) worrisome
12. VOW:
(A) argue
(B) claim
(C) please
(D) pledge
13. ASPIRATION:
(A) breath
(B) hope
(C) injury
(D) trend
14. BASHFUL:
(A) argumentative
(B) serious
(C) shy
(D) tolerant
15. SINISTER:
(A) elderly
(B) erratic
(C) uncomfortable
(D) wicked
16. DISCLOSE:
(A) hide
(B) remove
(C) reveal
(D) undress
17. CONGEAL:
(A) coagulate
(B) help
(C) recede
(D) weaken
18. INUNDATE:
(A) enter
(B) flood
(C) migrate
(D) strive
19. STEADFAST:
(A) constant
(B) optional
(C) quick
(D) restful
20. RUTHLESS:
(A) counterfeit
(B) unofficial
(C) unsparing
(D) victorious

Go on to the next page. →

Part Two – Sentence Completion

Directions: Select the word that best completes the sentence.

21. Myron was able to remain completely -----; he never took sides in any of the disagreements around the house.
- (A) biased
(B) interested
(C) neutral
(D) thoughtful
22. Since the great drought left the soil completely useless, the people of that country were forced to ----- food from other countries.
- (A) export
(B) import
(C) report on
(D) sell
23. Because he was annoyed by even the smallest grammatical error, Mr. Jones reviewed all the students' papers ----- before grading them.
- (A) crudely
(B) helplessly
(C) inefficiently
(D) meticulously
24. Eric doesn't merely dislike racism; he ----- it.
- (A) abhors
(B) moderates
(C) questions
(D) studies
25. Sharon's anger was too great: David simply could not ----- her with his charm.
- (A) irritate
(B) manipulate
(C) pacify
(D) terrify
26. Even though the accident led to serious damage to our property, our ----- lawyer didn't present a convincing argument and we received no compensation.
- (A) discerning
(B) fatalistic
(C) incompetent
(D) professional
27. After months of petty disputes, the two countries finally decided to sit down at a table and have a ----- discussion.
- (A) friendly
(B) hostile
(C) lengthy
(D) pressing
28. Although the thief claimed that he accidentally picked up the stolen watch, the jury judged his action -----.
- (A) deliberate
(B) frantic
(C) impractical
(D) misguided

Go on to the next page. →

29. In order to be a good doctor, you don't need to be ----- yourself, just as a good architect does not have to live in a fancy house.
- (A) educated
 - (B) handsome
 - (C) healthy
 - (D) thoughtful
30. Pete ----- his coach when he followed up his winning season with an even better performance this year.
- (A) disappointed
 - (B) gratified
 - (C) relieved
 - (D) upset
31. While many species, such as wolves, travel in groups, the cheetah is a ----- animal.
- (A) dangerous
 - (B) pack
 - (C) solitary
 - (D) territorial
32. During his years in the Senate, Jones felt ----- about speaking up at all, while most of the other senators were aggressive and argumentative.
- (A) blithe
 - (B) contented
 - (C) favorable
 - (D) timid
33. The politician's speech was so ----- that nearly everyone in the room decided not to vote for him.
- (A) feeble
 - (B) monotonous
 - (C) persuasive
 - (D) unique
34. The corporation did not have a ----- system for promotions; each department was free to use its own discretion in advancing employees.
- (A) dignified
 - (B) favorable
 - (C) forgiving
 - (D) uniform
35. Only from years of training can a gymnast hope to become ----- enough to master Olympic-level techniques.
- (A) agile
 - (B) mature
 - (C) passive
 - (D) strict
36. Though Mr. Fenster was known to be ----- toward his neighbors, he always welcomed their children as trick-or-treaters at Halloween.
- (A) belligerent
 - (B) cheerful
 - (C) courteous
 - (D) direct

Go on to the next page. →

37. The ----- young man talked back to his parents and teachers alike.
- (A) dreary
 - (B) insolent
 - (C) nervous
 - (D) respectful
38. While the painting's brushstrokes seem -----, they are actually carefully planned out.
- (A) flagrant
 - (B) haphazard
 - (C) intricate
 - (D) paltry
39. The Declaration of Independence is premised upon ----- principles, such as protecting life, liberty and the pursuit of happiness.
- (A) certain
 - (B) lofty
 - (C) predictable
 - (D) variable
40. Our teacher advised us not to get too caught up in the ----- of information in the textbook, or we could lose the "big picture" of its theory.
- (A) minutiae
 - (B) principles
 - (C) scope
 - (D) thought

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



Section 2

Quantitative Reasoning

37 Questions**Time: 35 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:

What is the value of the expression

$$1 + 3 \times (4 \div 2) - 5 ?$$

- (A) 2
- (B) 3
- (C) 4
- (D) 8

Sample Answer

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

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

Go on to the next page. →

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:	<u>Column A</u>	<u>Column B</u>	<u>Sample Answer</u>
	$\frac{2}{3}$ of 9	$\frac{1}{3}$ of 18	Ⓐ Ⓑ ● Ⓓ
	The quantity in <u>Column A</u> (6) is the same as the quantity in <u>Column B</u> (6), so circle C is darkened.		
EXAMPLE 3:	When integer x is multiplied by 2, the result is greater than 10 but less than 16.		<u>Sample Answer</u>
	<u>Column A</u>	<u>Column B</u>	Ⓐ Ⓑ Ⓒ ●
	x	7	
	Since $10 < 2x < 16$, $5 < x < 8$. Thus, as x can equal 6 or 7, there is not enough information given to determine the relationship. Circle D is darkened.		

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



Part One – Word Problems

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

1. $54 \times 3 =$

- (A) 123
- (B) 150
- (C) 162
- (D) 172

2. What is the area of a square with a side of length 2 ?

- (A) 2
- (B) 4
- (C) 6
- (D) 8

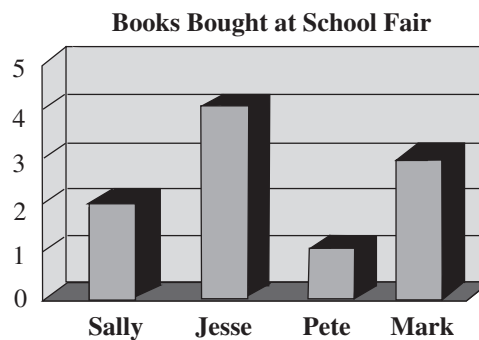
3. $3 \times 2 \times 1 - (4 \times 3 \times 2) =$

- (A) 18
- (B) 6
- (C) -6
- (D) -18

4. Vicky scored 80, 90, and 94 on her three tests. What was her average score?

- (A) 81
- (B) 88
- (C) 90
- (D) 93

Questions 5-6 refer to the following graph.



5. Who bought the most books at the school fair?

- (A) Sally
- (B) Jesse
- (C) Pete
- (D) Mark

6. Sally and Mark together bought how many more books than Jesse?

- (A) 1
- (B) 2
- (C) 3
- (D) 5

Go on to the next page. →

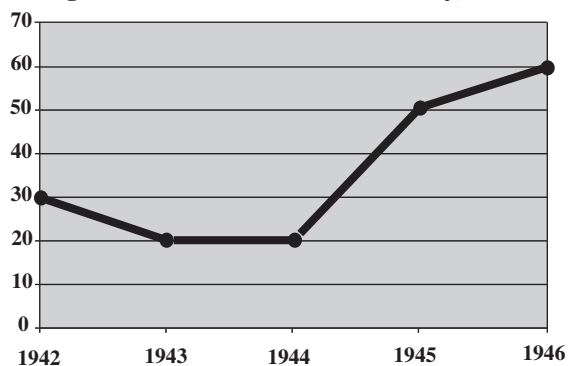
7. $\frac{1}{2} + \frac{3}{4} =$
- (A) $\frac{3}{8}$
- (B) $\frac{5}{4}$
- (C) $\frac{3}{2}$
- (D) $\frac{5}{2}$
8. What is the value of the digit 7 in the number 4,678.02 ?
- (A) 7
- (B) 70
- (C) 700
- (D) 7,000
9. Jason has several books in his room, 20% of which are fiction. The other books are nonfiction. If he has 5 fiction books, how many nonfiction books does he have?
- (A) 5
- (B) 10
- (C) 20
- (D) 25
10. $\frac{7}{0.35} =$
- (A) 0.2
- (B) 2
- (C) 20
- (D) 200
11. Which of the following is closest in value to 5 ?
- (A) 4.5
- (B) 5.009
- (C) 5.01
- (D) 5.101
12. Janice went to the butcher and bought six pounds of hamburger. If the bill was \$18.50, which of the following is closest to the cost per pound of the hamburger?
- (A) \$2.00
- (B) \$3.00
- (C) \$5.00
- (D) \$6.00
13. Which of the following numbers is closest to the square root of 175 ?
- (A) 9
- (B) 13
- (C) 22
- (D) 30
14. Laurie was reading a book that had an illustration on every odd-numbered page. If there are 32 numbered pages in the book, how many illustrations are there?
- (A) 15
- (B) 16
- (C) 17
- (D) 31

Go on to the next page. 

15. If $6y + 8 = 20$, what is the value of $3y + 4$?
- (A) 2
(B) 8
(C) 10
(D) 12
16. A lecture hall's maximum capacity of 56 has increased by 75%. What is the new seating capacity after the increase?
- (A) 42
(B) 70
(C) 98
(D) 112
17. When a number is divided by 8, the quotient is 11 and the remainder is 2. What is the number?
- (A) 11
(B) 22
(C) 72
(D) 90

The following graph shows the amount of rainfall in Miller County for the years 1942–1946.

Average Inches of Rainfall in Miller County, 1942–1946



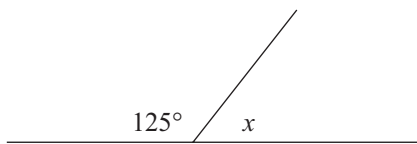
18. When did the greatest increase in rainfall occur in Miller County?
- (A) Between 1942 and 1943
(B) Between 1943 and 1944
(C) Between 1944 and 1945
(D) Between 1945 and 1946
19. The temperature at 6 A.M. was 32 degrees. If the temperature increased at a constant rate of 3 degrees per hour all day, what was the temperature at 1 P.M.?
- (A) 35 degrees
(B) 43 degrees
(C) 47 degrees
(D) 53 degrees
20. What is the volume of a box with length 4 cm, width 3 cm, and height 2 cm?
- (A) 6 cubic centimeters
(B) 9 cubic centimeters
(C) 12 cubic centimeters
(D) 24 cubic centimeters

Go on to the next page. →

Part Two – Quantitative Comparisons

Directions: Using all 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.

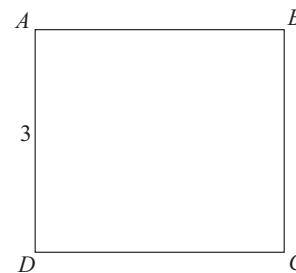


	<u>Column A</u>	<u>Column B</u>
21.	x	55

A rectangle with sides x and y has an area of 12.

	<u>Column A</u>	<u>Column B</u>
22.	The length of x	The length of y

	<u>Column A</u>	<u>Column B</u>
23.	$\sqrt{9} + \sqrt{25}$	$\sqrt{9+25}$



The quadrilateral $ABCD$ has an area of 12

	<u>Column A</u>	<u>Column B</u>
24.	The perimeter of $ABCD$	15

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.

Martha had \$20. She gave half of her money to her sister, Linda. Linda now has \$30.

Column A

Column B

25. The amount of money Martha now has
- The amount of money Linda had originally

$$4x + 7 = 63$$

$$\frac{y}{3} + 6 = 15$$

Column A

Column B

26. x
- y

Column A

Column B

27. The area of a rectangle with length 3 and width 4
- The area of a square with a side of 3

Number of Cookies Eaten Each Day

Wednesday	3
Thursday	2
Friday	1
Saturday	3

Column A

Column B

28. The average number of cookies eaten each day
- The number of cookies eaten on Thursday

Column A

Column B

29. $\sqrt{0.64}$
- $\sqrt{6.4}$

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.

Amy bought 5 oranges and 6 peaches.
The total price of the fruit was \$1.10.

Column A

Column B

30. The cost of one orange The cost of one peach

Column A

Column B

31. $-(-5)^6$ $(-5)^6$

a represents an odd integer greater than 9 and less than 15.

b represents an even integer greater than 9 and less than 15.

Column A

Column B

32. $a \times 3$ $b \times 4$

A 12-sided die with faces numbered 1 through 12 is rolled.

Column A

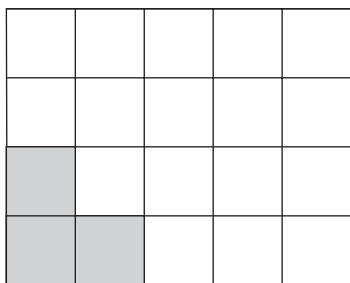
Column B

33. The probability that the result is even The probability that the result is prime

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.



Column A

Column B

34. The fractional part of the figure that is shaded $\frac{3}{20}$

Melvin brought home a large pizza with 12 slices.

Column A

Column B

35. The number of slices left if Melvin eats 50% of the pizza The number of slices left if Melvin eats one-third of the pizza

The original price of a shirt now on sale was \$50.

Column A

Column B

36. The price of the shirt after two 20% discounts The price of the shirt after a single 40% discount

Column A

Column B

37. The slope of the line with points (3, 8) and (5, 2) The slope of the line $6x - 2y = -8$

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



Section 3

Reading Comprehension

36 Questions

Time: 40 Minutes

This section contains six 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 stated or implied in that passage. You may write in the test booklet.

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



Questions 1-6*Line*

1 When most people think of the history
2 of transportation, they think of the invention
3 of the wheel as the starting point. The
4 wheel was invented around 3500 B.C.,
5 more than 5,000 years ago. Before then,
6 transportation was a difficult process,
7 especially for those who had anything to
8 carry. During prehistoric times, the only
9 way to get around was to walk. Children
10 and possessions were strapped to someone's
11 back if they needed to be carried. If the
12 load was too heavy for one person, it could
13 be strapped to a pole and carried by two.
14 The sledge was developed as a way to
15 drag a heavy load. Sledges were originally
16 just logs or pieces of animal skin upon
17 which a load was strapped and dragged.
18 In time, runners were put on the sledge,
19 and it evolved to what is now called a sled.
20 Around 5000 B.C., the first animals were
21 domesticated, or tamed. Then, donkeys and
22 oxen were used to carry heavy loads and
23 pull sledges. It wasn't until almost 1,500
24 years later that wheeled vehicles appeared.
25 It is believed that the wheel was invented
26 in Mesopotamia, in the Middle East. About
27 300 years later, the Egyptians invented the
28 sailboat. These two inventions changed
29 transportation forever.

Go on to the next page. →

1. The primary purpose of the passage is to
 - (A) describe some of the things people used for transportation long ago
 - (B) describe the reasons that led to transportation discoveries
 - (C) explain the evolution of the sled
 - (D) give a detailed history of transportation

2. The passage suggests that prehistoric man used all of the following for carrying things EXCEPT
 - (A) animals
 - (B) children
 - (C) poles
 - (D) primitive sleds

3. The passage implies that early man
 - (A) was incapable of inventing the wheel any earlier than 3500 B.C.
 - (B) was interested in farming
 - (C) was interested in finding ways to help carry things
 - (D) was outgoing and friendly

4. It can be inferred from the passage that the reason animals were domesticated was
 - (A) to help carry large loads
 - (B) to move people and possessions around quickly
 - (C) to provide family pets
 - (D) to ward off danger

5. Which of the following describes the author's attitude toward the invention of the wheel?
 - (A) Admiration
 - (B) Disdain
 - (C) Indifference
 - (D) Regret

6. The passage suggests that the sledge was
 - (A) a precursor to the sled
 - (B) invented in conjunction with the wheel
 - (C) made exclusively of animal skin
 - (D) the only tool used for transportation at the time

Go on to the next page. →

Questions 7-12*Line*

1 Bison and buffalo are not the same
2 animal. For years, American bison were
3 mistakenly referred to as buffalo. Due to
4 this confusion there are many references
5 to buffalo in the United States. There is the
6 city of Buffalo in northwestern New York
7 state. In addition, the buffalo appeared
8 on the U.S. nickel for many years at the
9 beginning of the twentieth century. This is
10 often referred to as the “Buffalo Nickel” to
11 distinguish it from the current nickel with
12 Thomas Jefferson on the front. Buffalo are
13 actually found in Asia, Africa, and South

14 America. Bison roamed the North American
15 western plains by the millions just a couple
16 of centuries ago. Because the bison were so
17 widely hunted, however, their numbers fell
18 greatly. In fact, as of a century ago, there
19 were only about 500 left. They were deemed
20 near extinction, but due to conservation
21 efforts, their numbers have increased. There
22 are approximately 50,000 bison living today
23 in protected parks. Though they may never
24 be as abundant as they once were, they are
25 not in danger of extinction as long as they
26 remain protected.

Go on to the next page. →

7. The primary purpose of the passage is to
- (A) applaud conservation efforts
 - (B) explain the genetic difference between the bison and the buffalo
 - (C) explain why people confuse the buffalo and the bison
 - (D) give some background on the American bison
8. The passage implies that the primary difference between the buffalo and the bison is
- (A) their geographic location
 - (B) their number
 - (C) their size
 - (D) when they existed
9. As used in line 19, the word “deemed” most closely means
- (A) found
 - (B) hunted
 - (C) ruled
 - (D) eaten
10. According to the passage, what can be hoped for as long as the American bison is protected?
- (A) They will be as plentiful as they once were.
 - (B) They will disturb the delicate ecological balance in the plains.
 - (C) They will face even greater dangers.
 - (D) They will probably not die out.
11. According to the passage, the primary reason that the American bison is no longer near extinction is
- (A) conservation efforts
 - (B) lack of interest in hunting them
 - (C) loss of value of their fur
 - (D) the migration of the animals
12. In line 6, the author mentions the city of Buffalo in order to
- (A) criticize a hunting practice
 - (B) establish the reason for a particular currency
 - (C) illustrate a common misunderstanding
 - (D) pinpoint the first sighting of buffalo in New York

Go on to the next page. →

Questions 13-18*Line*

1 The Greek philosopher Aristotle
2 had many students, but perhaps none so
3 famous as Alexander the Great. As a child,
4 Alexander was known for his intelligence
5 and bravery. The lessons he learned from
6 Aristotle left him with a lifelong love of
7 books and learning. But it was not his love
8 of books that made him famous. Alexander,
9 in 336 B.C., became the king of a small
10 Greek kingdom called Macedonia. He was
11 only twenty at the time. He went on to
12 invade country after country: Persia (now
13 known as Iran), Egypt, and all the way
14 to parts of India and Pakistan. Alexander
15 conquered most of what was then the
16 “civilized world.” He brought with him the
17 Greek way of thinking and doing things. He
18 is considered one of the great generals and
19 kings of history and is responsible for the
20 spread of Greek culture throughout much of
21 the world.

Go on to the next page. →

13. Which of the following would be the best title for the passage?
- (A) “Alexander the Great: King and Conqueror”
 - (B) “Aristotle: Teacher of the Kings”
 - (C) “Greek Culture”
 - (D) “The History of Macedonia”
14. As used in line 16, the word “civilized” most closely means
- (A) barbaric
 - (B) educated
 - (C) friendly
 - (D) well-mannered
15. The tone of the passage is most like that found in
- (A) a diary entry from an historian
 - (B) a letter from an archeologist
 - (C) a philosophy journal
 - (D) a reference book
16. According to the passage, one of the things that was so impressive about Alexander was
- (A) his ability to teach
 - (B) his great integrity
 - (C) his handsome features
 - (D) his intelligence and culture
17. The passage suggests that Aristotle
- (A) encouraged Alexander to spread culture
 - (B) helped foster Alexander’s love of books
 - (C) supported Alexander’s military career
 - (D) taught Alexander military strategy
18. According to the passage, when Alexander invaded a country, he
- (A) enslaved citizens
 - (B) freed oppressed people
 - (C) spread Greek ideas
 - (D) toppled monuments

Go on to the next page. →

Questions 19-24*Line*

1 Everyone has had attacks of the
2 hiccups, or hiccoughs, at one point in his or
3 her life. Few people, however, think about
4 what is happening to them and how hiccups
5 begin and end.

6 The diaphragm is a large muscle,
7 shaped like a dome, that sits at the base
8 of the chest cavity. As one breathes, the
9 diaphragm gently contracts and relaxes
10 to help the process. Occasionally, an
11 irritation near the diaphragm or a disease
12 may cause the muscle to spasm, or contract
13 suddenly. The spasm will suck air into the
14 lungs past the vocal cords. A small flap
15 called the epiglottis tops the vocal cords so
16 that food will not accidentally enter into

17 the windpipe. The sudden spasm of the
18 diaphragm causes the epiglottis to close
19 quickly. Imagine the pull of air into the
20 vocal cords from the spastic diaphragm
21 hitting the closed epiglottis. This moves
22 the vocal cords, causing the “hic” sound
23 of the hiccup. Although most people don’t
24 really worry about the hiccups, attacks may
25 last for days. The exhaustion of hiccuping
26 for days on end has been fatal in certain
27 rare cases. Home remedies abound—from
28 breathing into paper bags to squeezing on
29 pressure points that supposedly relax the
30 diaphragm.

Go on to the next page. →

19. The primary purpose of the passage is to
- (A) describe a common occurrence
 - (B) prescribe a treatment
 - (C) settle a dispute
 - (D) warn about a danger
20. According to the passage, one possible cause of hiccups is
- (A) a sudden rush of air
 - (B) an irritant near the diaphragm
 - (C) breathing in and out of a paper bag
 - (D) the closing of the epiglottis
21. As used in line 24, “attacks” most closely means
- (A) advances
 - (B) assaults
 - (C) bouts
 - (D) threats
22. The passage suggests that which of the following makes the “hic” sound of the hiccup?
- (A) The diaphragm
 - (B) The lungs
 - (C) The stomach
 - (D) The vocal cords
23. According to the passage, the hiccups can be fatal due to
- (A) fatigue from days of hiccuping
 - (B) home remedies that are toxic
 - (C) the humiliation of hiccuping for days on end
 - (D) the irritant to the diaphragm
24. The author mentions “hiccoughs” in line 2 in order to
- (A) correct an improper usage
 - (B) define a technical term
 - (C) indicate an alternate spelling
 - (D) weaken a misguided argument

Go on to the next page. →

Questions 25-30*Line*

1 During the winter months in many
2 regions, food can be extremely scarce. For
3 the wildlife of these areas, this can be a
4 great problem unless animals have some
5 mechanism that allows them to adapt. Some
6 animals migrate to warmer climates. Others
7 hibernate to conserve energy and decrease
8 the need for food. Prior to hibernation, an
9 animal will generally eat a lot to build up a
10 store of fat. The animal's system will "feed"
11 off the fat stores throughout the long cold
12 winter months. When the animal hibernates,
13 its body temperature decreases and its body
14 functions slow down considerably. The
15 dormouse's heartbeat, for example, slows
16 down to just a beat every few minutes. Its

17 breathing also becomes slow and its body
18 temperature drops to just a few degrees
19 above the temperature of the ground around
20 it. All these changes decrease the need for
21 fuel and allow the animal to survive long
22 periods without any food. It is a mistake
23 to think that all hibernating animals sleep
24 for the whole winter. In fact, many animals
25 hibernate for short spurts during the winter.
26 They may wake for an interval of mild
27 weather. Scientists have now discovered
28 the chemical that triggers hibernation. If
29 this chemical is injected in an animal in the
30 summer months, it can cause the animal to
31 go into summer hibernation.

Go on to the next page. →

25. The primary purpose of the passage is to
- (A) compare the hibernating dormouse to other hibernating animals
 - (B) debunk some common myths about hibernation
 - (C) discuss the discovery of the chemical that causes hibernation
 - (D) explore some basic information about hibernation
26. As used in line 7, the word “conserve” most closely means
- (A) expend
 - (B) help
 - (C) reserve
 - (D) waste
27. According to the author, each of the following happens to a hibernating animal EXCEPT
- (A) it goes into a dream state
 - (B) its body temperature drops
 - (C) its breathing slows
 - (D) its heartbeat slows
28. Which of the following can be inferred as a reason a hibernating animal may interrupt its hibernation?
- (A) A day or two of stormy weather
 - (B) An overabundance of food
 - (C) A week in which there was no snow
 - (D) A week in which the temperature was well above freezing
29. According to the author, if the chemical that triggers hibernation is injected into an animal when it would not normally hibernate, the chemical may
- (A) allow the animal to shed extra fat stores
 - (B) cause an out-of-season hibernation
 - (C) cause body functions to slow to a halt
 - (D) decrease an animal’s need for food
30. The tone of the passage is best described as
- (A) amazed
 - (B) concerned
 - (C) indifferent
 - (D) informative

Go on to the next page. →

Questions 31-36*Line*

1 The theater is one of the richest art
2 forms. The excitement of opening night
3 can be felt by the people waiting to watch
4 a performance and by the performers and
5 workers backstage waiting for the curtain
6 to go up. Live theater is thrilling because
7 no one really knows how well the play
8 will go until it is performed. Many people
9 collaborate to bring a play to life. There
10 are playwrights, directors, set designers,
11 costumers, lighting technicians, and,
12 of course, actors. If the performance is
13 a musical, the skills of a songwriter, a
14 choreographer (the person who composes
15 the dances), and musicians are also
16 required. The word *theater* comes from the
17 Greek *theatron*, which means “a place for
18 seeing.” One concept from Greek theater
19 that is still seen in some plays today is the
20 “Greek Chorus.” This consists of several
21 actors/characters watching the action of the

22 play (almost like the audience) and then
23 commenting on what they just saw with
24 either reactions or dialogue. Although most
25 people think of the theater in terms of a play
26 performed on the stage, theater has taken
27 on a much broader meaning in the modern
28 world. You may find yourself walking into
29 a theater with no seats in the rows. Instead,
30 you are seated among the set pieces, which
31 makes you part of the setting. Sometimes
32 theater may come to life on a street corner,
33 or in a classroom. The excitement of theater
34 is in its very nature—it is an art form that
35 changes as it is interpreted in different
36 ways by different people. That is probably
37 why the works of the greatest playwright
38 of all time, William Shakespeare, are still
39 performed and enjoyed today, both in
40 classic and new interpretations.

Go on to the next page. →

31. The best title for the passage might be
- (A) “A Brief History of Theatrical Productions”
 - (B) “Modern Theater: Adventures in Acting”
 - (C) “Shakespeare: Our Greatest Playwright”
 - (D) “The Excitement of Theater”
32. According to the passage, the primary reason that theater is so exciting is that
- (A) it derives from a Greek custom
 - (B) it is performed live
 - (C) plays are often well written
 - (D) there are so many people working on it
33. The passage suggests which of the following about modern theater?
- (A) It always draws great attention from the audience.
 - (B) It has been interpreted in a more varied fashion.
 - (C) It is less exciting than classic theater.
 - (D) There are mostly Shakespearean plays performed.
34. The author’s attitude toward theater can best be described as
- (A) admiring
 - (B) ambivalent
 - (C) apathetic
 - (D) neutral
35. In line 1, the word “richest” is best understood to mean most
- (A) diverse
 - (B) entertaining
 - (C) terrifying
 - (D) wealthy
36. The passage suggests that the plays of Shakespeare
- (A) are more often given new interpretations today than at any other time
 - (B) are more popular today than during Shakespeare’s time
 - (C) have been performed in a variety of ways
 - (D) will always be considered the world’s greatest

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



Section 4

Mathematics Achievement

47 Questions**Time: 40 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** (A) (B) (C) (D)

What is the perimeter of an equilateral triangle with a side length of 4 in?

- (A) 8 in
- (B) 12 in
- (C) 16 in
- (D) 24 in

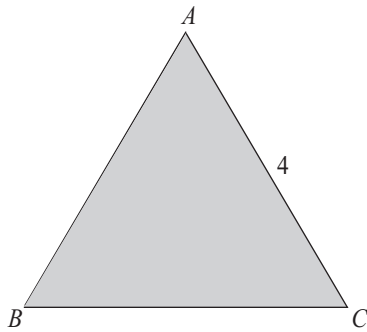
The correct answer is 12 in, so circle B is darkened.

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



1. In the decimal 0.0987, the digit 9 is equivalent to which of the following?
- (A) $\frac{9}{10}$
(B) $\frac{9}{100}$
(C) $\frac{9}{1,000}$
(D) $\frac{9}{10,000}$
2. What is the least common multiple of 6, 9, and 12 ?
- (A) 3
(B) 36
(C) 72
(D) 324
3. Which of the following equals 5 ?
- (A) $30 - 12 \div 2 \times (3 + 7)$
(B) $30 - 12 \div (2 \times 3 + 7)$
(C) $(30 - 12) \div 2 \times 3 + 7$
(D) $30 - 12 \div 2 \times 3 - 7$
4. $\frac{5}{7} + \frac{2}{11} =$
- (A) $\frac{10}{17}$
(B) $\frac{10}{77}$
(C) $\frac{7}{18}$
(D) $\frac{69}{77}$
5. $7\frac{1}{2}$ hours is how many minutes more than $6\frac{1}{4}$ hours?
- (A) 45
(B) 60
(C) 75
(D) 90

Go on to the next page. 



6. What is the perimeter of equilateral triangle ABC shown above?
- (A) 12
(B) 15
(C) 18
(D) It cannot be determined from the information given.
7. Which of the following is 20% of 200 ?
- (A) 20
(B) 30
(C) 40
(D) 100

Questions 8-10 refer to the following chart.

Day	Temperature (in degrees Celsius)	Snowfall (in centimeters)
Monday	2	3
Tuesday	6	3
Wednesday	3	4
Thursday	13	1

8. What was the total amount of snowfall for the four-day period shown?
- (A) 44 cm
(B) 40 cm
(C) 11 cm
(D) 10 cm
9. On which day was the snowfall the greatest?
- (A) Thursday
(B) Wednesday
(C) Tuesday
(D) Monday
10. What was the average temperature for each day in the four-day period?
- (A) 24 degrees
(B) 20 degrees
(C) 11 degrees
(D) 6 degrees

Go on to the next page. →

11. $\frac{100}{0.25} =$

- (A) 4
- (B) 40
- (C) 400
- (D) 4000

12. $5 \times 31 = 100 + _$

- (A) 55
- (B) 51
- (C) 50
- (D) 36

13. Gwen planted six tomato plants. Half of them died. She then planted one more. How many tomato plants does Gwen have now?

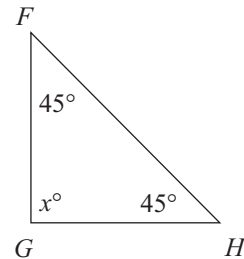
- (A) 3
- (B) 4
- (C) 5
- (D) 6

14. The public library charges one dollar to rent a video overnight, with a fifty-cent charge for each day the video is late. If Tracey returns a video three days late, how much does she owe all together?

- (A) \$1.50
- (B) \$2.00
- (C) \$2.50
- (D) \$3.50

15. $0.45 \times 100 =$

- (A) 4,500
- (B) 450
- (C) 45
- (D) 4.5



16. In triangle FGH shown above, the value of angle x , in degrees, is

- (A) 30
- (B) 45
- (C) 50
- (D) 90

17. If a dozen eggs cost \$1.20, then 3 eggs cost

- (A) 30¢
- (B) 36¢
- (C) 40¢
- (D) \$3.60

Go on to the next page. →

18. Boris and his friend Bruce collect baseball cards. If Bruce has 12 baseball cards and Boris has three times as many baseball cards as Bruce, what is the average number of cards in the boys' collections?
- (A) 7.5
(B) 18
(C) 24
(D) 48
19. What is the perimeter of a rectangle with length 3 and width 2 ?
- (A) 6
(B) 8
(C) 10
(D) 12
20. $\frac{3}{5} \times \frac{2}{7} =$
- (A) $\frac{3}{8}$
(B) $\frac{6}{35}$
(C) $\frac{31}{35}$
(D) $\frac{21}{35}$
21. If Kenny can run three miles in 45 minutes, how long will it take him to run five miles?
- (A) 1 hour
(B) 1 hour 15 minutes
(C) 1 hour 30 minutes
(D) 2 hours
22. Which fraction is greater than $\frac{5}{11}$?
- (A) $\frac{3}{8}$
(B) $\frac{2}{7}$
(C) $\frac{4}{9}$
(D) $\frac{4}{7}$
23. If the perimeter of a square is 36, what is its area?
- (A) 16
(B) 36
(C) 64
(D) 81
24. Maureen studied for two hours before school. After school she studied for twice as long as she had before school. What was the total number of hours she studied in the day?
- (A) 4
(B) 6
(C) 8
(D) 12
25. $\frac{40(37+63)}{8} =$
- (A) 450
(B) 500
(C) 1,250
(D) 4,000

Go on to the next page. 

26. $0.347 =$

(A) $\frac{7}{10} + \frac{4}{100} + \frac{3}{1,000}$

(B) $\frac{3}{100} + \frac{4}{10} + \frac{7}{100}$

(C) $\frac{4}{100} + \frac{3}{10} + \frac{7}{1,000}$

(D) $\frac{3}{10} + \frac{4}{1,000} + \frac{7}{100}$

27. Which is the prime factorization of 36 ?

(A) $3 \times 3 \times 3 \times 2$

(B) $3 \times 3 \times 2 \times 2$

(C) $3 \times 2 \times 2 \times 2$

(D) $6 \times 3 \times 2$

Questions 28-30 refer to the following chart.

Train Fares from Monroeville to Perkins' Corner

Fares	Weekday Peak	Weekday Off-Peak	Weekend & Holiday
One Way	\$6.00	\$5.00	\$4.50
Round-Trip	\$12.00	\$10.00	\$9.00
10-Trip Ticket	\$54.00	\$45.00	\$40.00
Children Under 11	\$1.00	\$0.50	Free with Paying Adult

28. How much would it cost two adults and one child under the age of 11 to travel one way from Monroeville to Perkins' Corner on a weekend?

(A) \$25.00

(B) \$20.50

(C) \$18.00

(D) \$9.00

29. The price of a weekday peak fare ten-trip ticket is what percent less than the cost of purchasing ten one-way weekday peak fare tickets?

(A) 10%

(B) 20%

(C) 50%

(D) 100%

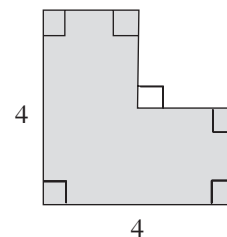
Go on to the next page. →

30. How much more does it cost for one adult to travel one way during the weekday peak fare period than for one adult to make the trip on the weekend?
- (A) \$0.50
(B) \$0.75
(C) \$1.00
(D) \$1.50
31. Mr. Schroder swims laps at the community pool. It takes him 5 minutes to swim one lap. If he swims for 60 minutes without stopping, how many laps will he swim?
- (A) 8
(B) 10
(C) 12
(D) 14
32. $10^3 =$
- (A) 10×3
(B) $10 + 10 + 10$
(C) $10 \times 10 \times 10$
(D) $\frac{10}{3}$
33. A DVD player initially cost \$100. During a sale, the store reduced the price by 10%. Two days later, the store reduced the new price by 20%. What was the final price?
- (A) \$68
(B) \$70
(C) \$72
(D) \$80
34. Mr. Hoffman has a rectangular box that is 10 centimeters wide, 30 centimeters long, and 4 centimeters high. What is the volume of the box?
- (A) 44 cm^3
(B) 120 cm^3
(C) 300 cm^3
(D) $1,200 \text{ cm}^3$
35. Dr. Heldman sees an average of nine patients an hour for eight hours on Monday and for six hours on Tuesday. What is the average number of patients she sees on each day?
- (A) 54
(B) 63
(C) 72
(D) 126
36. If $q + 9 = 7 - p$, what is the value of $q + p$?
- (A) -16
(B) -2
(C) 2
(D) 16

Go on to the next page. 

37. Which of the following is the product of two consecutive even integers?
- (A) 0
(B) 15
(C) 22
(D) 30
38. Two triangles, ABC and XYZ are similar. Triangle ABC has lengths of 3, 4, and 5. Which of the following could be the corresponding lengths of triangle XYZ ?
- (A) 3, 3, and 3
(B) 4, 5, and 6
(C) 6, 8, and 10
(D) 13, 14, and 15
39. The perimeter of a square whose area is 169 centimeters is
- (A) 52
(B) 48
(C) 44
(D) 42
40. If three-fourths of the 240 employees at Tigger's Toys are at a party, how many of the employees are NOT at the party?
- (A) 60
(B) 80
(C) 120
(D) 180

41. Jose and Greg are going on a 20-mile walk for charity. If they walk $\frac{1}{4}$ of the distance in the first two hours, and $\frac{1}{5}$ of the entire distance in the next hour and a half, how many miles do they have left to walk?
- (A) 9
(B) 10
(C) 11
(D) 12



42. What is the perimeter of the shaded area in the figure above?
- (A) 15
(B) 16
(C) 24
(D) It cannot be determined from the information given.
43. A field hockey player scored an average of 3 goals per game for 12 games. How many points did she score in all 12 games?
- (A) 4
(B) 20
(C) 24
(D) 36

Go on to the next page. →

44. What is the volume of a box with length 8, width 4, and height $\frac{1}{4}$?
- (A) 8
(B) $12\frac{1}{4}$
(C) 32
(D) 128
45. The price of a \$30 hat is decreased by 20%. What is the new price of the hat?
- (A) \$10.00
(B) \$12.00
(C) \$20.00
(D) \$24.00
46. There are 5 oatmeal cookies, 6 brownies, and 8 granola bars in a jar. If an item is selected at random, what is the probability of selecting a brownie?
- (A) $\frac{1}{6}$
(B) $\frac{6}{19}$
(C) $\frac{8}{19}$
(D) $\frac{6}{13}$
47. Which of the following is equivalent to $\frac{2}{3}x = 6 - y$?
- (A) $2x = 6 - 3y$
(B) $3y - x = 6$
(C) $2x + 3y = 18$
(D) $2(x + 3y) = 18$

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



Essay

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 on to 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 next page.

