

# MATH SUMMER ASSIGNMENTS 2026

Name \_\_\_\_\_

Summer assignments for students entering grade 8 Algebra:

Students must complete practice problems to the best of their ability prior to the first day of the 2026-2027 school year. The packet will be due no later than Friday, August 21 and time will be given to review solutions in class the following week. HSPT Practice (Quantitative Skills-30 minutes and Mathematics – 45 minutes) needs to be completed as well.

Note: Calculators will rarely be used during the first trimester to improve mental math skills. By practicing calculations manually, students strengthen their ability to estimate and solve problems without relying on external tools.

Have a safe and happy summer!

**Test**  
**1**

**End-of-Course Test**

**Order the numbers from least to greatest.**

1.  $|-3|, 4, -4, -|2|, -1$       2.  $\frac{21}{2}, -7.5, -\frac{36}{5}, 9.5$

**Simplify the expression.**

3.  $4 - (-3)$       4.  $-2 + 15$       5.  $-3(4)$       6.  $27 \div (-3)$   
 7.  $-\frac{1}{6} + \frac{7}{12}$       8.  $0.24 - 1.6$       9.  $2\frac{3}{5} \cdot \left(-\frac{4}{3}\right)$       10.  $-24 + 3.2$

11. On an exam you get two points for each question answered correctly, zero points for each question left blank, and lose one point for each question answered incorrectly. What is your total score on the exam if you answer 22 questions correctly, leave 7 questions blank, and answer 5 questions incorrectly?

**Solve.**

12.  $x + 2\frac{4}{5} = 3\frac{1}{6}$       13.  $-0.4a + 1.2 = 3.6$

14. A pencil costs \$0.30 and a pen costs \$0.50. You buy 10 pencils and the total cost is \$7.50. How many pens did you buy?

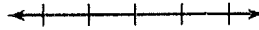
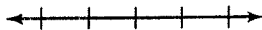
15. A farmer builds a fence to enclose a rectangular pasture. He uses 160 feet of fence. Find the total area of the pasture if it is 50 feet long.

**Write the word sentence as an inequality.**

16. 3 less than a number  $t$  is at most 7.  
 17. A number  $m$  multiplied by 4 is greater than 12.  
 18. You and two friends are making a gift basket. You want to keep the cost below \$15 per person. Write and solve an inequality that represents the total cost of the gift basket.

**Solve the inequality. Graph the solution.**

19.  $a - 7 \leq -4$       20.  $-3m < 15$



**Answers**

1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_  
 4. \_\_\_\_\_  
 5. \_\_\_\_\_  
 6. \_\_\_\_\_  
 7. \_\_\_\_\_  
 8. \_\_\_\_\_  
 9. \_\_\_\_\_  
 10. \_\_\_\_\_  
 11. \_\_\_\_\_  
 12. \_\_\_\_\_  
 13. \_\_\_\_\_  
 14. \_\_\_\_\_  
 15. \_\_\_\_\_  
 16. \_\_\_\_\_  
 17. \_\_\_\_\_  
 18. \_\_\_\_\_  
 19. \_\_\_\_\_  
 20. \_\_\_\_\_  
 See left.  
 See left.

## Test

## 1

## End-of-Course Test (continued)

21. If you spend at least \$50 (including shipping) at an online store, you receive a \$10 gift card. You want to purchase CDs that cost \$12 each. If shipping costs \$5, write and solve an inequality to find the number of CDs you must buy to receive the gift card.
22. The table shows the time in minutes  $m$  to download  $s$  songs. How long does it take to download one song?

Minutes	1	3	5
Songs	2	6	10

Tell whether the ratios form a proportion.

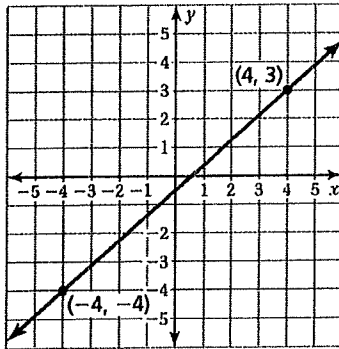
23.  $\frac{3}{8}, \frac{13}{40}$

24.  $\frac{7}{9}, \frac{28}{36}$

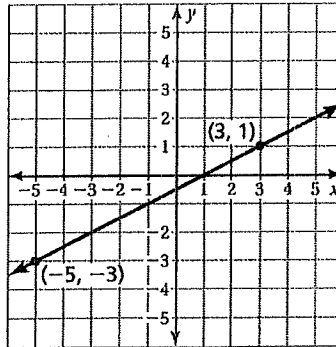
25. Solve the proportion  $\frac{7}{5} = \frac{21}{x}$ .

Find the slope of the line.

26.



27.



28. If 30% of a number is 15, what is the number?
29. A store sign reads "Take 75% off the original price when you take an additional 15% off the sale price, which is 60% off the original price." Is the store's sign accurate? Explain.
30. You put \$1200 in an account that earns 3% simple interest. Find the total amount in the account after four years.

Classify the angles as *complementary*, *supplementary*, or *neither*.

31.  $23^\circ, 67^\circ$

32.  $46^\circ, 144^\circ$

## Answers

21. \_\_\_\_\_
22. \_\_\_\_\_
23. \_\_\_\_\_
24. \_\_\_\_\_
25. \_\_\_\_\_
26. \_\_\_\_\_
27. \_\_\_\_\_
28. \_\_\_\_\_
29. \_\_\_\_\_
30. \_\_\_\_\_
31. \_\_\_\_\_
32. \_\_\_\_\_

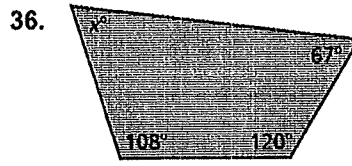
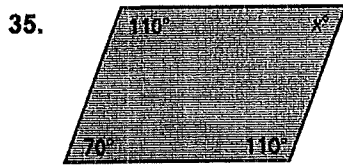
**Test  
1**

**End-of-Course Test (continued)**

**Classify the triangle.**



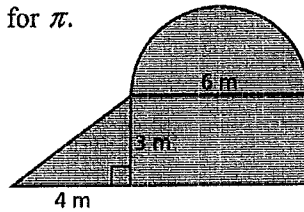
**Find the value of x.**



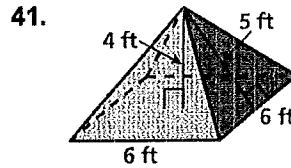
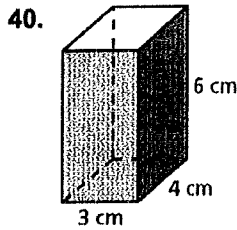
**Answers**

- 33. \_\_\_\_\_
- \_\_\_\_\_
- 34. \_\_\_\_\_
- \_\_\_\_\_
- 35. \_\_\_\_\_
- 36. \_\_\_\_\_
- 37. \_\_\_\_\_
- 38. \_\_\_\_\_
- \_\_\_\_\_
- 39. \_\_\_\_\_
- 40. \_\_\_\_\_
- \_\_\_\_\_
- 41. \_\_\_\_\_
- \_\_\_\_\_

- 37. A scale drawing has a scale of 3 in. : 1 ft. What is the scale factor?
- 38. The diameter of a circle is 14 inches. Find the circumference and area. Use  $\frac{22}{7}$  for  $\pi$ .
- 39. Find the area of the figure. Use 3.14 for  $\pi$ .



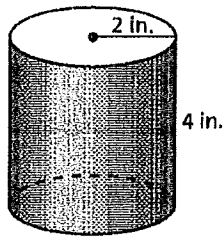
**Find the volume and surface area of the solid.**



**Test  
1**

**End-of-Course Test (continued)**

42. Find the surface area of the cylinder.  
Round your answer to the nearest tenth.



43. A manufacturer wants to make a box with a volume of 24 cubic feet.  
a. Sketch two possible designs for the box.

- b. If the box is to be made out of wood that costs \$4 per square foot, which of your designs would be less expensive to produce? Explain.

44. The theoretical probability that you will try out for the school play is  $\frac{1}{10}$ . There are 22 students in your grade that try out for the school play. How many students are in your grade?
45. You flip two coins. What is the probability that you flip at least one head?

**You roll a number cube twice. Find the probability of the event.**

46. Rolling a 5 then a 3
47. Rolling an even then an odd
48. The probability that your ticket will be chosen in a drawing is 6%. There are 250 tickets in the drawing. How many tickets are yours?

**Answers**

42. \_\_\_\_\_
43. a. See left.
- b. See left.
44. \_\_\_\_\_
45. \_\_\_\_\_
46. \_\_\_\_\_
47. \_\_\_\_\_
48. \_\_\_\_\_

**QUANTITATIVE SKILLS SUBTEST**

30 MINUTES

PRACTICE TEST 1

**Samples:**

A. What number added to 3 makes 2 plus 5?

- (a) 3 (b) 4 (c) 5 (d) 7

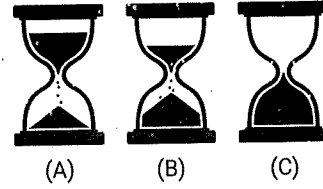
B. In the sequence: 1, 2, 3, 4, 5, . . . , what number should come next?

- (a) 3 (b) 6 (c) 5 (d) 4

C. Examine (A), (B), and (C) and find the *best* answer.

- (A)  $(3 - 2) - 1$   
 (B)  $(3 - 1) - 2$   
 (C)  $3 - (2 - 1)$
- (a) (A) is greater than (B).  
 (b) (A), (B), and (C) are equal.  
 (c) (C) is greater than (A) and (B).  
 (d) (B) is greater than (A).

D. Examine the hourglasses (A), (B), and (C) and find the *best* answer.



- (a) (A) shows the most time passed.  
 (b) (B) shows the most time passed.  
 (c) (C) shows the most time passed.  
 (d) (A) and (B) show the same time has passed.

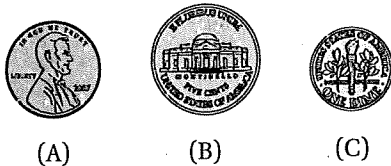
Correct marking of samples:

- A.  A  B  C  D  
 B.  A  B  C  D  
 C.  A  B  C  D  
 D.  A  B  C  D

61. In the sequence:  $-0.4, -1.6, -4.8, -9.6, \dots$ , what number should come next?

- (a) 19.2 (b)  $-9.8$  (c)  $-9.6$  (d)  $-19.2$

62. Examine (A), (B), and (C) and find the *best* answer.



- (a)  $(A) + (C) < (B)$   
 (b)  $(B) - (C) = (A)$   
 (c)  $(B) + (A) < (C)$   
 (d)  $(A) + (B) = (C)$

63. In the sequence: 4, 16, 5, 25, 6, 36, . . . , what number should come next?

- (a) 49 (b) 7 (c) 40 (d) 16

64. What number subtracted from 18 makes 5 more than 11?

- (a) 8 (b) 13 (c) 2 (d) 29

65. In the sequence: 87, 76, 65, . . . , what number should come next?

- (a) 78 (b) 54 (c) 66 (d) 56

66. Examine (A), (B), and (C) and find the *best* answer.

(A)  $\frac{5}{6}$  of 36

(B)  $\frac{1}{3}$  of 60

(C)  $\frac{4}{7}$  of 49

- (a)  $(A) < (B) < (C)$   
 (b)  $(A) = (B)$   
 (c)  $(A) > (C) > (B)$   
 (d)  $(B) = (C)$

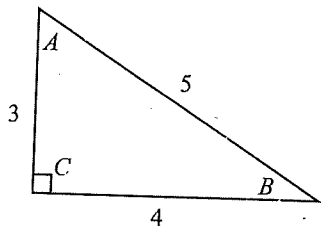
67. In the sequence: B8, F10, J30, N32, . . . , what comes next?

- (a) O22 (b) R64 (c) P9 (d) R96

68. What number subtracted from  $7^2$  makes 20% of 50?

- (a) 10 (b) 39 (c) 20 (d) 25

69. Examine the angles  $A$ ,  $B$ , and  $C$  and find the *best* answer.



- (a)  $A > C$   
 (b)  $C > A > B$   
 (c)  $B = C$   
 (d)  $B > A = C$

70. In the sequence: 61, 68, 75, 82, . . . , what number should come next?

- (a) 85 (b) 89 (c) 92 (d) 95

71. In the sequence: 54, 18, 6, 2, . . . , what number should come next?

- (a) 0.2 (b)  $\frac{2}{3}$  (c) 2 (d) 0.6

72. Examine (A), (B), and (C) and find the *best* answer.

(A)  $\frac{5}{11}$

(B)  $\frac{5}{18}$

(C)  $\frac{1}{3}$

- (a)  $(C) > (A) > (B)$   
 (b)  $(A) = (B)$   
 (c)  $(A) > (C) > (B)$   
 (d)  $(B) = (C)$

73. In the sequence: 875, 175, 35, 7, . . . , what number should come next?

- (a) 1 (b) -7 (c)  $1\frac{2}{5}$  (d) 0

74. In the sequence: 400, 200, 150, 75, 25, . . . , what number should come next?

- (a) 75 (b) -25 (c)  $12\frac{1}{2}$  (d) 22

75. In the sequence: I, II, VI, XII, XVI, . . . , what numeral should come next?

- (a) XXXII  
 (b) XII  
 (c) XX  
 (d) XXII

76. Examine (A), (B), and (C) and find the *best* answer when  $x$  and  $y$  are both positive.

- (A)  $3x + 5y$   
 (B)  $3(x + y)$   
 (C)  $3x + y$

- (a) (B) and (C) are equal.  
 (b) (A) is less than (C).  
 (c) (B) is greater than (C).  
 (d) (C) is greater than (A).

77. In the sequence: 46M, 40P, 44S, . . . , what comes next?

- (a) 40C (b) 31B (c) 38V (d) 41U

78. In the sequence: 64DW, 67EX, 70FY, . . . , what comes next?

- (a) 67IZ
- (b) 73GM
- (c) 71KM
- (d) 73GZ

79. What number when subtracted from 87 makes  $\frac{1}{4}$  of 80?

- (a) 7
- (b) 84
- (c) 67
- (d) 23

80. In the sequence: 90, 30, 36, 12, 18, . . . , what two numbers should come next?

- (a) 6, 12
- (b) 24, 25
- (c) 6, 18
- (d) 18, 24

81. What number is 11 less than  $\frac{4}{5}$  of 50?

- (a) 40
- (b) 29
- (c) 39
- (d) 16

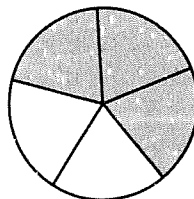
82. Examine (A), (B), and (C) and find the *best* answer.

- (A)  $(4 \times 9) + 5$
- (B)  $5 + (4 \times 9)$
- (C)  $4 \times (9 + 5)$

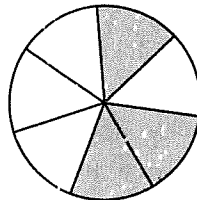
- (a) (B) is equal to (A) and less than (C).
- (b) (B) is equal to (C) which is greater than (A).
- (c) (B) is greater than (A) which is greater than (C).
- (d) (B) is greater than (C) which is greater than (A).

83. Examine (A), (B), and (C) and find the *best* answer.

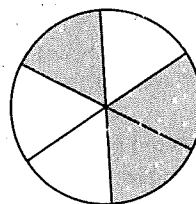
(A)



(B)



(C)



- (a) (A), (B), and (C) are equally shaded.
- (b) (C) is shaded less than (B) and more than (A).
- (c) (B) and (C) are shaded equally.
- (d) (C) is shaded more than (B) and less than (A).

84. What number subtracted from 68 leaves 7 more than 3 times 8?

- (a) 61
- (b) 24
- (c) 59
- (d) 37

85. In the sequence: 33, 30, 32, 28, 31, 26, . . . , what two numbers should come next?

- (a) 29, 34
- (b) 31, 29
- (c) 31, 30
- (d) 30, 24

86. In the sequence: -92, -85, -78, -71, . . . , what number should come next?

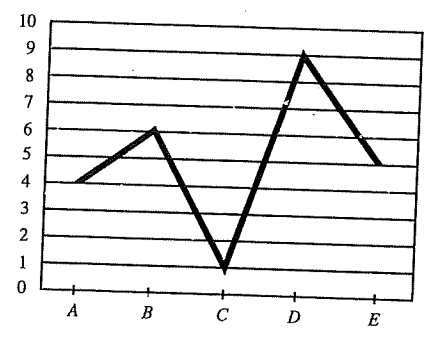
- (a) -64
- (b) -70
- (c) -63
- (d) -58

87. Examine (A), (B), and (C) and find the *best* answer.
- (A) 10% of 60  
 (B)  $\frac{1}{6}$  of 36  
 (C) 60% of 10
- (a) (A) > (C)  
 (b) (A) < (B) < (C)  
 (c) (B) > (C)  
 (d) (A) = (B) = (C)
88. In the sequence: 18, 31, 45, 60, . . . , what number should come next?
- (a) 76    (b) 71    (c) 68    (d) 72
89. Examine (A), (B), and (C) and find the *best* answer.
- (A) 420%  
 (B) 0.42  
 (C)  $\frac{2}{5}$
- (a) (B) is greater than (A).  
 (b) (B) is equal to (C).  
 (c) (C) is less than (B) and (A).  
 (d) (A) is equal to (B).
90. What number is twice as much as  $\frac{2}{3}$  of 66?
- (a) 88    (b) 25    (c) 44    (d) 22
91. In the sequence: 42, 51, 63, 72, 84, . . . , what comes next?
- (a) 92    (b) 82    (c) 89    (d) 93
92. What number subtracted from 54 makes 26 more than 3?
- (a) 25    (b) 28    (c) 29    (d) 53
93. In the sequence: J12, I24, H36, . . . , what should come next?
- (a) I40    (c) G48  
 (b) F50    (d) G38

94. Examine (A), (B), and (C) and find the *best* answer.
- (A)  $\frac{1}{4}$   
 (B) 24%  
 (C) 0.24
- (a) (A), (B), and (C) are equal.  
 (b) (B) is less than (A) and equal to (C).  
 (c) (C) is less than (B).  
 (d) (A) and (C) are greater than (B).

95. In the sequence: 56, 3, 52, 6, . . . , what number should come next?
- (a) 9    (b) 48    (c) 50    (d) 12
96. What number is 6 more than 15% of 80?
- (a) 10    (b) 18    (c) 21    (d) 46
97. In the sequence: 3, 27, 5, 45, 7, . . . , what number should come next?
- (a) 9    (c) 720  
 (b) 555    (d) 63

98. Examine the bar graph and find the *best* answer.

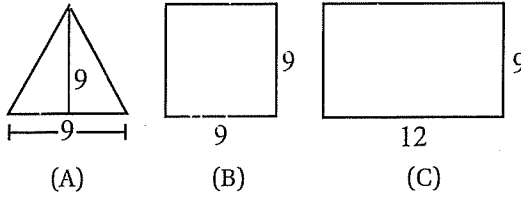


- (a) A plus E equals D.  
 (b) B plus C equals D.  
 (c) A plus B equals D.  
 (d) A, C, and D are equal.
99. In the sequence: 24, 28, 36, 42, 48, . . . , one number is *wrong*. That number should be
- (a) 30    (b) 32    (c) 44    (d) 54

100. In the sequence: 13CZ, 26DY, 39EX, 52FW, . . . , what should come next?

- (a) 65GV                      (c) 55HO  
(b) 60GP                      (d) 65OV

101. Examine the area in the polygons below and find the *best* answer.



- (a) (A) = (B) = (C)  
(b) (A) < (B) < (C)  
(c) (A) = (B) = (C)  
(d) (A) = (C) > (B)

102. What number multiplied by 13 is equal to 15 more than 24?

- (a) 4            (b) 11            (c) 2            (d) 3

103. Examine (A), (B), and (C) and find the *best* answer.

- (A) 4 feet  
(B) 37 inches  
(C) 1 yard

- (a) (A) > (B) > (C)  
(b) (A) < (B) < (C)  
(c) (C) < (A) < (B)  
(d) (A) < (C) < (B)

104. In the sequence: 40, 32, 25, 19, 14, . . . , what number should come next?

- (a) 10            (b) 12            (c) 8            (d) 6

105. Examine (A), (B), and (C) and find the *best* answer.

- (A)  $(12 \times 6) \div 3$   
(B)  $(12 \times 3) \div 6$   
(C)  $12 \times (6 \div 3)$

- (a) (A) is equal to (B).  
(b) (C) is equal to (A).  
(c) (B) is greater than (A).  
(d) (C) is equal to (B).

106. Examine (A), (B), and (C) and find the *best* answer.

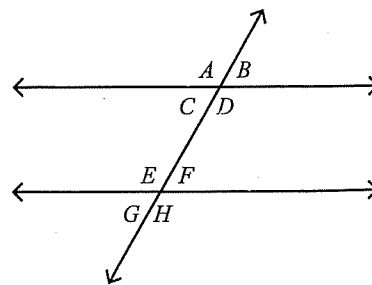
- (A)  $\frac{9}{40}$   
(B)  $\frac{21}{80}$   
(C)  $\frac{1}{4}$

- (a) (C) > (A) > (B)  
(b) (A) > (B) > (C)  
(c) (A) > (B) = (C)  
(d) (B) > (C) > (A)

107. What number multiplied by 12 makes 8 less than 44?

- (a) 3            (b) 4            (c) 7            (d) 5

108. Examine the angles A, B, C, and D and find the *best* answer.



- (a)  $A = B$   
(b)  $A = D$   
(c)  $B = D$   
(d)  $C = A$

109. Examine (A), (B), and (C) and find the *best* answer.

- (A) 30% of 40
- (B) 40% of 30
- (C) 12

- (a) (A) is equal to (B) and greater than (C).
- (b) (A), (B), and (C) are equal.
- (c) (C) is greater than (A) or (B).
- (d) (B) is greater than (A).

110.  $\frac{1}{3}$  of what number is 9 times 5?

- (a) 135    (b) 15    (c) 20    (d) 45

111. Examine (A), (B), and (C) and find the *best* answer.

- (A)  $(-11 + 6) \times 2$
- (B)  $(-3 \times 11) \times 3$
- (C)  $(-11 \times 6) \times 2$

- (a) (A) and (C) are equal.
- (b) (A) and (B) are equal.
- (c) (B) is less than (A).
- (d) (A) is less than (B).

112. Examine (A), (B), and (C) and find the *best* answer.



(A)



(B)



(C)

- (a) (A) shows the most time passed.
- (b) (B) shows the most time passed.
- (c) (C) shows the most time passed.
- (d) (A) and (C) show the same time has passed.

## MATHEMATICS SUBTEST

45 MINUTES

PRACTICE TEST 1

**Sample:**

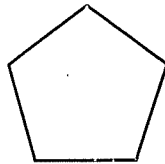
A. The number thirty-seven is also written as

- (a) 27 (b) 33 (c) 37 (d) 63

Correct marking of sample:

- A.
- 
- A
- 
- B
- 
- C
- 
- D

175. What is the name of this polygon?



- (a) hexagon  
 (b) octagon  
 (c) pentagon  
 (d) heptagon

176. Solve:  $21 \overline{)4264}$ 

- (a) 204 R1  
 (b) 203 R1  
 (c) 203 R21  
 (d) 203

177. Two hundredths can be written as

- (a) 0.2 (c) 0.0002  
 (b) 0.02 (d) 200

178. Express  $\frac{5}{12}$  as a decimal.

- (a)  $0.4\bar{1}$   
 (b)  $0.41\bar{6}$   
 (c)  $0.\overline{416}$   
 (d)  $0.41\overline{61}$

179. The greatest common factor of 108 and 72 is

- (a) 6  
 (b) 18  
 (c) 36  
 (d) 9

180. How many pints of milk will fit in a 2-gallon container?

- (a) 4 pints  
 (b) 32 pints  
 (c) 16 pints  
 (d) 8 pints

181. Solve:  $\frac{3}{7} \div \frac{1}{5}$ 

- (a)  $2\frac{1}{7}$  (c)  $\frac{3}{35}$   
 (b)  $2\frac{1}{2}$  (d)  $\frac{5}{7}$

182. Solve:

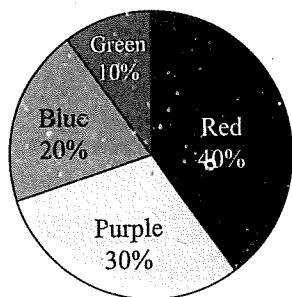
$$\begin{array}{r} 24.6 \\ \times 0.31 \\ \hline \end{array}$$

- (a) 63.25 (c) 76.26  
 (b) 0.7626 (d) 7.626

183. Solve:  $\sqrt{81}$ 

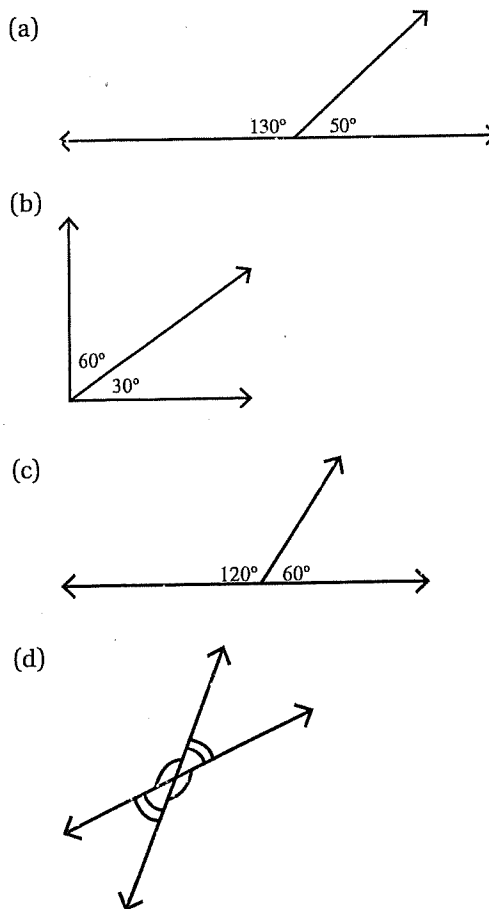
- (a) 6 (b) 5 (c) 9 (d) 18

184. What is equivalent to  $7^6 \times 7^2$ ?  
 (a)  $7^{12}$  (b)  $7^8$  (c)  $7^4$  (d)  $49^8$
185. 0.18 kilometers equals  
 (a) 18 meters  
 (b) 180 meters  
 (c) 1,800 meters  
 (d) 1.8 meters
186. What number is in the tens place after simplifying  $(4 \times 10^2) + (3 \times 10^3) + (21 + 10^1)$ ?  
 (a) 3 (b) 4 (c) 7 (d) 0
187. Solve:  $(-4) \times (-2) \times (-9) =$   
 (a) 54 (b) -54 (c) 72 (d) -72
188. The pie chart shows the favorite colors of a school of 1,200 students. How many students have blue as their favorite color?

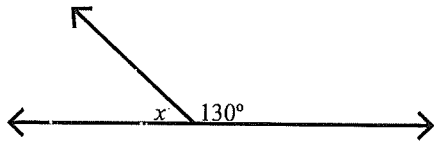


- (a) 20 (b) 480 (c) 120 (d) 240
189. Which information is best displayed on a bar graph?  
 (a) daily temperatures  
 (b) family income  
 (c) types of pets owned by families  
 (d) finish times for a race
190. In Massachusetts, sales tax is 5% of the purchase. If Emmett buys a toy for \$28.80, how much will he pay in sales tax?  
 (a) \$14.40 (c) \$28.00  
 (b) \$0.44 (d) \$1.44

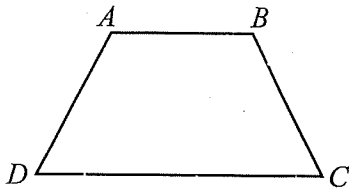
191. Larry read 3 more books than Kathy. Kathy read twice as many books as Matthew. Matthew read 2 fewer books than Nick. Together they read 23 books. How many books did Nick read?  
 (a) 5 (b) 18 (c) 8 (d) 12
192. What is the area of a square that has a perimeter of 32 inches?  
 (a)  $64 \text{ in.}^2$  (c)  $1,024 \text{ in.}^2$   
 (b)  $16 \text{ in.}^2$  (d)  $320 \text{ in.}^2$
193. Which diagram shows complementary angles?



194. What is the measure of angle  $x$ ?



- (a)  $50^\circ$  (b)  $60^\circ$  (c)  $180^\circ$  (d)  $45^\circ$
195. Three quarters are equivalent to what fraction of \$2.00?
- (a)  $\frac{1}{4}$  (b)  $\frac{3}{4}$  (c)  $\frac{3}{8}$  (d)  $\frac{6}{7}$
196. The perimeter of a rectangle is 28 cm and the sides are made up of even integers. The longest that one side can be is
- (a) 6 cm (c) 12 cm  
(b) 14 cm (d) 8 cm
197. Which of the following is true of a trapezoid?

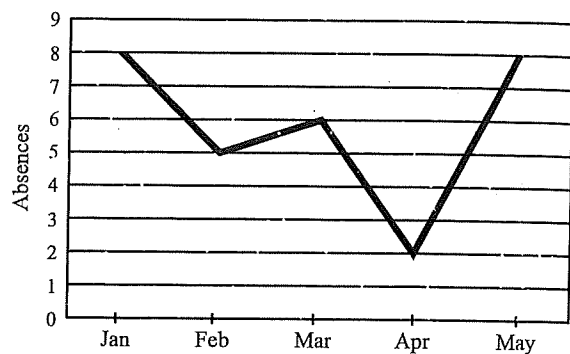


- (a)  $\overline{AD}$  is parallel to  $\overline{BC}$   
 (b)  $\angle A$  is equal to  $\angle B$   
 (c)  $\overline{AB}$  is equal to  $\overline{CD}$   
 (d)  $\overline{AB}$  is parallel to  $\overline{CD}$
198. During a basketball game Charles scored 9 points, Kyle scored 12 points, Ben scored 11 points, and Joe did not score any points. What was the average individual score during the game?
- (a) 10 (b)  $8\frac{2}{3}$  (c)  $10\frac{2}{3}$  (d) 8

199. A jar holds 3 red candies, 3 yellow candies, and 1 blue candy. If you choose a piece of candy at random, what is the probability of choosing a red candy?

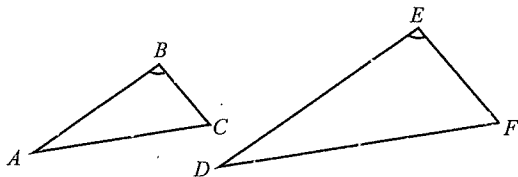
(a)  $\frac{1}{7}$  (b)  $\frac{3}{4}$  (c)  $\frac{3}{10}$  (d)  $\frac{3}{7}$

200. The time plot below shows the number of school absences per month for a local elementary school. What is the average number of absences for the time period shown?



- (a) 5 (b)  $5\frac{2}{5}$  (c)  $5\frac{4}{5}$  (d) 4
201. Which expression best represents the following problem?
- The sum of 2 times one number and 18 is 72. What is the number?
- (a)  $2 + x = 18$   
 (b)  $2 + 18x = 72$   
 (c)  $2x + 18 = 72$   
 (d)  $2 = 72 + 18x$

202. If  $\triangle ABC \cong \triangle DEF$ , which statement is *not* true?



- (a)  $\angle C = \angle F$
- (b)  $\overline{AB} \cong \overline{DF}$
- (c)  $\overline{BC} \cong \overline{EF}$
- (d)  $\angle B = \angle E$

203. 2 lb. 8 oz. equals

- (a) 28 oz.
- (b) 24 oz.
- (c) 40 oz.
- (d) 32 oz.

204. Solve:  $8.2 \overline{)4.592}$

- (a) 0.55
- (b) 0.66
- (c) 5.6
- (d) 0.56

205. Solve:  $\frac{2}{3} \div \frac{9}{4} =$

- (a)  $\frac{3}{2}$
- (b)  $\frac{8}{27}$
- (c)  $\frac{4}{9}$
- (d)  $\frac{18}{12}$

206. Five students reported the following scores from a standardized test. What is the mean score among the 5 students?

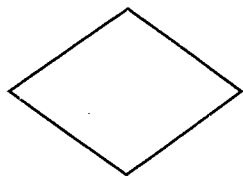
780, 520, 400, 650, 600

- (a) 710
- (b) 590
- (c) 600
- (d) 550

207. How many sides are there in a hexagon?

- (a) 6
- (b) 5
- (c) 4
- (d) 7

208. This shape is an example of a



- (a) square
- (b) rhombus
- (c) rectangle
- (d) trapezoid

209. If the highest value in a set of numbers is doubled what will happen to the median of the set of numbers?

- (a) It will double.
- (b) It will remain the same.
- (c) It will increase by 4.
- (d) It will be reduced by half.

210. What is the diameter of a circle with a radius of 32?

- (a) 64
- (b) 16
- (c) 8
- (d)  $32^2$

211. What number is  $\sqrt[3]{8}$ ?

- (a) 64
- (b) 3
- (c) 2
- (d) -2

212. Which statement best describes the following inequality?

$$2x - 4 < \frac{2}{3}$$

- (a) The difference of two times a number and 4 is greater than two-thirds.
- (b) The sum of 2 and a number is less than two-thirds.
- (c) The difference of two times a number and 4 is less than two-thirds.
- (d) The product of 2 and a number is greater than two-thirds.

213. If Betty earns \$20,000 and was given a raise of \$6,000, what percent increase does her raise represent?

- (a) 30
- (b) 60
- (c) 6
- (d) 20

214. Solve for  $m$ :  $\frac{2}{3} \times 7 = 12m$

- (a)  $\frac{15}{36}$
- (b)  $\frac{10}{3}$
- (c) 19
- (d)  $\frac{7}{18}$

215. If the length of a side of a square is doubled, what will happen to the area?
- (a) It doubles.
  - (b) It is multiplied by 4.
  - (c) It remains the same.
  - (d) It increases by 2.

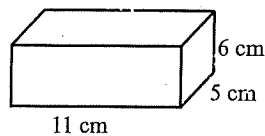
216. Kathleen has 17 grandchildren. Five are girls and the rest are boys. If she randomly selects one grandchild, what is the probability that it will be a girl?

- (a)  $\frac{5}{12}$     (b)  $\frac{7}{12}$     (c)  $\frac{7}{17}$     (d)  $\frac{5}{17}$

217. Kathryn gets paid for babysitting at a rate of \$11 per hour. Last week she babysat for 6 hours on Monday, 3 hours on Thursday, and 7 hours on Friday. How much money, in dollars, did she earn last week?

- (a) \$176    (b) \$170    (c) \$16    (d) \$181

218. What is the surface area of this figure?



- (a)  $324 \text{ cm}^2$     (c)  $41 \text{ cm}^2$   
 (b)  $66 \text{ cm}^2$     (d)  $302 \text{ cm}^2$

219. Solve:

$$\begin{array}{r} 2,685 \\ 1,372 \\ + 9,201 \\ \hline \end{array}$$

- (a) 13,354    (c) 12,368  
 (b) 12,356    (d) 13,258

220. Sandra has \$50 for holiday shopping. She buys some quantity of the same gifts for \$5 each and receives \$7 in change. Which expression best represents this?

- (a)  $50 - x = 7 \times 5$   
 (b)  $50 - 7x = 5$   
 (c)  $50 - 5x = 7$   
 (d)  $5x - 7 = 50$

221. If a drawing is created using a scale where 3 inches is equal to 2 feet, how wide would a drawing be of a room that is 12 feet wide?

- (a) 1 foot    (c) 6 inches  
 (b) 18 inches    (d) 12 inches

222. Solve:

$$\begin{array}{r} 1,285 \\ \times 372 \\ \hline \end{array}$$

- (a) 186,320    (c) 478,020  
 (b) 378,022    (d) 488,030

223. Solve:  $-12x > 36$

- (a)  $x > -3$     (c)  $x < -3$   
 (b)  $x > 3$     (d)  $x < 3$

224. A meteorologist measured the temperature for the first week of November and recorded the following.

18, 18, 23, 24, 34, 41, 52

What is the median temperature for the week?

- (a) 24    (c) 18  
 (b) 30.1    (d) 34

225. Emmett is taller than Sarah. Christina is taller than William. Sarah is the same height as Christina so

- (a) Emmett is the same height as William.  
 (b) Emmett is taller than Christina.  
 (c) William is taller than Sarah.  
 (d) Sarah is the same height as William.

226. Mary travels 5 hours at 50 miles per hour. What equation represents the distance she traveled?

(a)  $D = 5 \times 50$       (c)  $5 = 50 \times D$   
 (b)  $D = \frac{50}{5}$       (d)  $D \times 5 = 50$

227. The following are rankings that students gave their math teacher at St. John's High School. Find the mode of the set of scores.

7, 2, 4, 6, 7, 8, 3, 4, 7, 2, 3, 6, 4, 7, 8, 3, 7, 5, 8

(a) 4      (b) 3      (c) 7      (d) 8

228. Karyn can shovel  $\frac{2}{5}$  of the snow from her driveway each hour. How long will it take her to shovel snow from her entire driveway?

(a) 2.5 hours      (c) 2 hours  
 (b) 1.25 hours      (d) 1.5 hours

229. Sarah is making a curtain that is 12 feet by 9 feet. Fabric for the curtain costs \$28.00 per square yard. How much will Sarah spend on fabric?

(a) \$336.00      (c) \$2,016.00  
 (b) \$72.00      (d) \$280.00

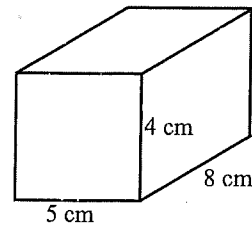
230. Three Girl Scouts sold cookies for \$4.25 per box. The first Girl Scout sold 5 boxes, the second sold 12 boxes, and the third sold 8 boxes. How much money did the three Girl Scouts earn in cookie sales?

(a) \$80.50      (c) \$106.25  
 (b) \$104.50      (d) \$25.00

231. Solve:  $-6 - 12 =$

(a) -18      (b) 6      (c) -6      (d) 18

232. What is the volume of this object?

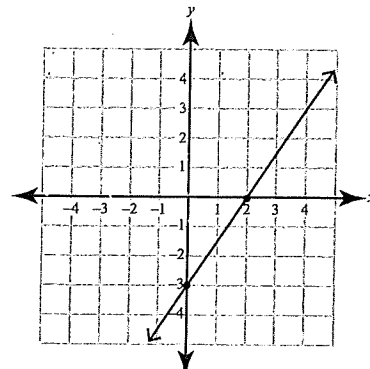


(a)  $160 \text{ cm}^3$       (c)  $34 \text{ cm}^3$   
 (b)  $64 \text{ cm}^3$       (d)  $320 \text{ cm}^3$

233. Mrs. Pickering purchased a plant for 60% of the original price. If she paid \$54.60, what was the original price of the plant?

(a) \$136.50      (c) \$327.60  
 (b) \$91.00      (d) \$21.84

234. What is the slope of the line shown in the graph below?



(a)  $-\frac{2}{3}$       (b)  $\frac{2}{3}$       (c)  $\frac{3}{2}$       (d)  $-\frac{3}{2}$

235. Driving home, Lawrence drove for 30 minutes at 50 miles per hour and then drove another 20 minutes at 60 miles per hour. What distance did Lawrence travel home?

(a) 110 miles      (c) 55 miles  
 (b) 25 miles      (d) 45 miles

236. A cup of milk is equal to 8 ounces. If a recipe calls for 400 ounces of milk, how many cups of milk are needed?

- (a) 25 cups                      (c) 32 cups  
(b) 50 cups                      (d)  $5\frac{1}{2}$  cups

237. Solve:  $\frac{\frac{2}{7}}{\frac{1}{3}} =$

- (a)  $\frac{7}{6}$                       (b)  $\frac{6}{7}$                       (c)  $\frac{2}{21}$                       (d) 2

238. The ratio of girls to boys is 5 to 13. If there are 25 girls, how many boys are there?

- (a) 18                      (b) 60                      (c) 65                      (d) 5

STOP