Exam

Name_____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Translate the phrase to an algebraic expression. Use x to represent "a number."

1) A number divided by -6    1) _____

A) $x \div -6$ or $\dfrac{x}{-6}$      B) $x - (-6)$      C) $-6 \cdot x$ or $-6x$      D) $-6 \div x$ or $\dfrac{-6}{x}$

Simplify.

2) $(-3)^3 - 25 \div (-5)$    2) _____

A) -32      B) 22      C) -22      D) 32

3) $401 - 245$    3) _____

A) 156      B) 266      C) 157      D) 166

4) $18 - |-25|$    4) _____

A) -7      B) 43      C) 7      D) -43

5) $3^2 \div 3 \times 3 + 7$    5) _____

A) 16      B) 63      C) 2      D) 12

6) $|-1| - |-13|$    6) _____

A) 12      B) -14      C) -12      D) 14

7) $(-7 \div 7) - (5 \div 5)$    7) _____

A) -2      B) 0      C) -1      D) 1

8) $5^2 \div 5 \times 2 + 2$    8) _____

A) 0      B) 12      C) 8      D) 20

9) $-(-7)$    9) _____

A) -7      B) -8      C) 0      D) 7

10) $\dfrac{52(7 - 4) - 24}{3^2 - 3}$    10) _____

A) 26      B) 44      C) 22      D) 27

11) $\dfrac{4 - 7}{-1}$    11) _____

A) 3      B) 11      C) -4      D) -3

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Fill in the blank with one of the words or phrases listed below.

| | | | | | |
|---|---|---|---|---|---|
| difference | area | square root | addend | exponent | variable |
| place value | factor | quotient | subtrahend | product | expression |
| sum | whole numbers | perimeter | dividend | minuend | digits |
| solution | set | equation | divisor | | |

12) An _____ is a shorthand notation for repeated multiplication of the same factor.          12) _____

      A) equation           B) area           C) expression           D) exponent

13) Use the facts below.          13) _____

$$2 \cdot 3 = 6 \qquad 4 + 17 = 21 \qquad 20 - 9 = 11 \qquad 5\overline{)35}\,^{7}$$

    The number 11 above is called the _____

      A) quotient           B) minuend           C) subtrahend           D) difference

14) To find the _____ of a rectangle, multiply length times width.          14) _____

      A) solution           B) area           C) product           D) perimeter

Multiply.

15) $8(-1)(9)(-3)$          15) _____

      A) 216           B) -216           C) 2           D) 35

Solve.

16) Subtract 8 from 77.          16) _____

      A) 79           B) 69           C) 68           D) 70

17) A deep-sea diver dives from the surface to 154 meters below the surface and then swims up 8 meters, down 17 meters, down another 28 meters, and then up 24 meters. Find the diver's depth after these movements.          17) _____

      A) 77 meters below the surface           B) 183 meters below the surface
      C) 167 meters below the surface           D) 111 meters below the surface

18) In a distant galaxy the gravity of planet A is 218 times as strong as the gravity of planet B, so objects on planet A weigh 218 times as much as they weigh on planet B. If the object weighs 29,866 pounds on planet A, how much does it weigh on plant B?          18) _____

      A) 1370 lb           B) 147 lb           C) 130 lb           D) 137 lb

19) Find the volume of a rectangular box 8 inches by 7 inches by 2 inches.          19) _____

      A) 128 cu in.           B) 112 cu in.           C) 28 cu in.           D) 392 cu in.

20) The seats in the lecture hall are arranged in 23 rows with 7 seats in each row. Find how many seats are in this room.          20) _____

      A) 168 seats           B) 154 seats           C) 161 seats           D) 171 seats

21) Last year a company had 5847 employees. This year the number of employees increased by 1396. How many employees does the company have now?          21) _____

      A) 7253 employees      B) 7343 employees      C) 7143 employees      D) 7243 employees

Fill in the balnk with one of the the words or phrases listed below.

| | | | | |
|---|---|---|---|---|
| inequality symbols | addition | solution | is less than | integers |
| expression | average | negative | absolute value | equation |
| positive | opposites | is greater than | multiplication | |

22) A combination of operations, on variables and numbers is called an _____.                    22) _____

A) equation            B) average            C) absolute value            D) expression

23) A statement of the form "expression = expression" is called an _____.                    23) _____

A) expression            B) equation            C) average            D) absolute value

Solve the equation.

24) $-9x = -45$                    24) _____

A) 5            B) 36            C) -36            D) -5
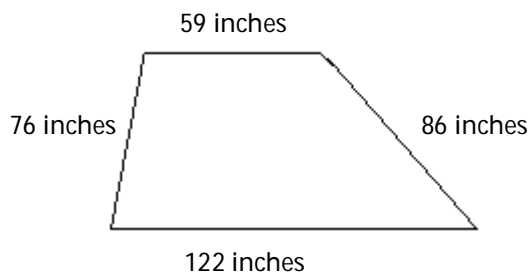
25) $n - 7 = 15$                    25) _____

A) -8            B) 22            C) -22            D) 8

Write the given integers in order from least to greatest.

26) $3^2$, $-|7|$, $-(-11)$, $-|-16|$                    26) _____

A) $-|-16|$, $-|7|$, $3^2$, $-(-11)$            B) $-|7|$, $-|-16|$, $3^2$, $-(-11)$

C) $-|-16|$, $-(-11)$, $-|7|$, $3^2$            D) $-(-11)$, $3^2$, $-|7|$, $-|-16|$

Find the perimeter.

27)                    27) _____

59 inches

76 inches            86 inches

122 inches

A) 290 in.            B) 324 in.            C) 284 in.            D) 343 in.

Determine the place value of the digit 3 in the whole number.
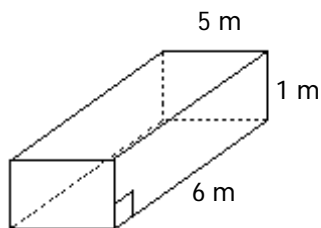
28) 403,681,295                    28) _____

A) hundred-millions            B) thousands

C) millions            D) hundred-thousands

Write the whole number in expanded form.

29) 96,748                    29) _____

A) 80,000 + 4000 + 700 + 60 + 9            B) 96,748

C) 9000 + 600 + 70 + 48            D) 90,000 + 6000 + 700 + 40 + 8

Find the volume of the solid.
30)

5 m

1 m

6 m

30) _____

A) 30 cu m          B) 90 cu m          C) 12 cu m          D) 5 cu m

Decide whether the given number is a solution of the given equation.

31) Is 2 a solution of $6m + 4 = 18$ ?          31) _____

A) yes                          B) no

32) Is 19 a solution of $6c + 3 - 5c = -30 + 14$ ?          32) _____

A) Yes                          B) No

Round the whole number to the given place.

33) 34,855,359 to the nearest million          33) _____

A) 35,000,000          B) 34,855,000          C) 34,000,000          D) 34,900,000

Evaluate the expression for $x = -2$, $y = 3$, $z = -4$.

34) $6 - z^2$          34) _____

A) 48          B) -10          C) 22          D) 14

Determine which numbers in the set are solutions to the equation.
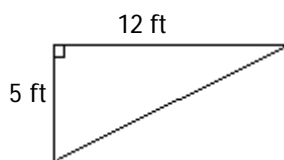
35) $5x = 15$; $\{3, 4, 75\}$          35) _____

A) 4          B) 3          C) 75          D) none of them

Find the area of the geometric figure.
36)

12 ft

5 ft

36) _____

A) 120 sq ft          B) 30 sq ft          C) 17 sq ft          D) 60 sq ft

Solve the problem by estimating.

37) Andy wants to buy a refrigerator for $799, a stove for $559, and a dishwasher for $349. Round each          37) _____
cost to the nearest hundred to estimate the total cost.

A) $1600          B) $1700          C) $1800          D) $1500
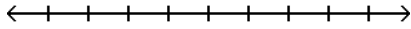
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Write the whole number in words.

38) 22,000,674

    A) twenty-two hundred million, six hundred seventy-four
    B) twenty-two million, six hundred seventy-four
    C) two million, two thousand, six hundred seventy-four
    D) twenty-two million, six thousand seventy-four

38) _____

Add the numbers using the number line.

39) -5 + 4

←—+—+—+—+—+—+—+—+—+—→

    A) 1          B) -1          C) -9          D) 9

39) _____

Find the average of the list of numbers.

40) 153, 112, 134, 141, 150

    A) 137          B) 138          C) 141          D) 148

40) _____