

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

## Pre-Algebra Semester One Exam REVIEW

### Multiple Choice

Identify the choice that best completes the statement or answers the question.

Use the Distributive Property to write each expression as an equivalent expression. Then evaluate it.

1.  $-7(10 + 1)$   
a.  $-70 - 7; -77$       c.  $-70 + 1; -69$   
b.  $3 + 6; 9$       d.  $-7(11); 4$

Translate the verbal sentence into an equation and solve.

2. The difference of 22 and a number is 8.  
a.  $y - 22 = 8; y = 14$       c.  $y - 22 = 8; y = 30$   
b.  $22 - y = 8; y = 30$       d.  $22 - y = 8; y = 14$
3. The sum of a number and 16 is 31.  
a.  $x + 16 = 31; x = 15$       c.  $16 + 31 = x; x = 15$   
b.  $16 + 31 = x; x = 47$       d.  $x + 16 = 31; x = 47$
4. The quotient of 10 and a number is 2.  
a.  $10 - a = 2; a = 8$       c.  $10 \div a = 2; a = 20$   
b.  $10 \div a = 2; a = 5$       d.  $a \div 2 = 10; a = 20$
5. Forty-two is the product of 6 and a number.  
a.  $42 = 6 + x; x = 36$       c.  $42 \cdot 6 = x; x = 252$   
b.  $42 = 6x; x = 7$       d.  $42 = 6x; x = 252$

Translate each phrase into an algebraic expression.

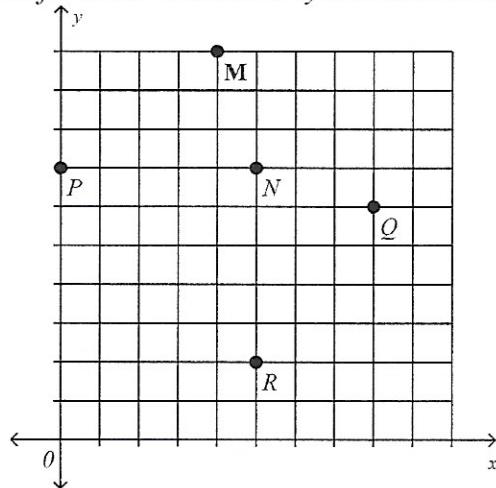
6. two less than a number divided by four  
a.  $2 - x \div 4$       c.  $2 + x \div 4$   
b.  $x \div 4 - 2$       d.  $4 \div x - 2$
7. the difference of nine and twice a number  
a.  $9 \div 2x$       c.  $9 - 2x$   
b.  $9 \div 2 + x$       d.  $9 - 2 + x$
8. twelve more than a number times three  
a.  $3 + x + 12$       c.  $3x + 12$   
b.  $3x - 12$       d.  $x + 12$
9.  $10 = \frac{w}{-8}$   
a.  $w = -80$       c.  $w = 2$   
b.  $w = -\frac{5}{4}$       d.  $w = 18$

Name: \_\_\_\_\_

Find each product.

- \_\_\_ 10.  $-6(-2)(-12)$   
a. 12      c. -144  
b. 144      d. -12
- \_\_\_ 11.  $10 \cdot (-5)$   
a. 50      c. -50  
b. 15      d. 5

Refer to the coordinate system shown below. Write the ordered pair that names each point.



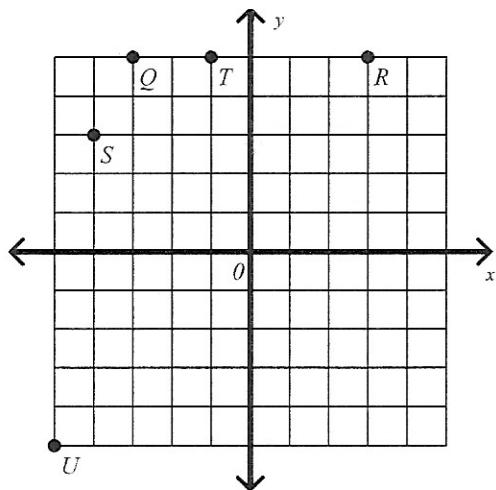
- \_\_\_ 12. N  
a.  $(5, 7)$       c.  $(7, 6)$   
b.  $(5, 6)$       d.  $(7, 5)$
- \_\_\_ 13. M  
a.  $(4, 9)$       c.  $(4, 10)$   
b.  $(10, 5)$       d.  $(10, 4)$

Solve each equation. Check your solution.

- \_\_\_ 14.  $c + 46 = -21$   
a.  $c = -\frac{21}{46}$       c.  $c = -67$   
b.  $c = -966$       d.  $c = 25$
- \_\_\_ 15.  $-20 + w = -69$   
a.  $w = -49$       c.  $w = \frac{69}{20}$   
b.  $w = -89$       d.  $w = 1380$

Name: \_\_\_\_\_

Refer to the coordinate system shown below. Write the ordered pair that names each point.



- \_\_\_\_ 16.  $Q$   
a.  $(3, 5)$       c.  $(-3, -5)$   
b.  $(5, -3)$       d.  $(-3, 5)$
- \_\_\_\_ 17.  $R$   
a.  $(5, 3)$       c.  $(3, 5)$   
b.  $(3, -5)$       d.  $(-3, 5)$

Find each quotient.

- \_\_\_\_ 18.  $\frac{81}{-9}$   
a.  $-729$       c.  $90$   
b.  $9$       d.  $-9$
- \_\_\_\_ 19.  $-120 \div (-12)$   
a.  $-10$       c.  $10$   
b.  $1440$       d.  $-108$

Find each difference.

- \_\_\_\_ 20.  $-20 - (-11)$   
a.  $9$       c.  $-9$   
b.  $31$       d.  $-31$
- \_\_\_\_ 21.  $-80 - 15$   
a.  $65$       c.  $-65$   
b.  $95$       d.  $-95$

Name: \_\_\_\_\_

*Name the property shown by each statement.*

- \_\_\_\_ 22.  $11 \cdot 15 = 15 \cdot 11$   
a. Commutative Property of Multiplication  
b. Multiplicative Property of Zero  
c. Multiplicative Identity  
d. Associative Property of Multiplication
- \_\_\_\_ 23.  $9x + 0 = 9x$   
a. Additive Identity  
b. Substitution Property of Equality  
c. Commutative Property of Addition  
d. Associative Property of Addition
- \_\_\_\_ 24.  $31 + (4 + 17) = (31 + 4) + 17$   
a. Associative Property of Addition  
b. Substitution Property of Equality  
c. Commutative Property of Addition  
d. Additive Identity
- \_\_\_\_ 25.  $-10z = -90$   
a.  $z = 9$   
b.  $z = -80$   
c.  $z = -100$   
d.  $z = 900$
- \_\_\_\_ 26.  $75 = 8w + 11$   
a.  $w = \frac{43}{4}$   
b.  $w = 512$   
c.  $w = 8$   
d.  $w = 64$

*Write a numerical expression for each verbal phrase.*

- \_\_\_\_ 27. the total number of sheets if each of the five packets contain fifty sheets  
a.  $5 \times 50$   
b.  $50 - 5$   
c.  $50 \div 5$   
d.  $5 + 50$
- \_\_\_\_ 28. sixteen less than eight  
a.  $16 \div 8$   
b.  $16 - 8$   
c.  $8 + 16$   
d.  $8 - 16$
- \_\_\_\_ 29. the quotient of eight and two  
a.  $2 - 8$   
b.  $8 \div 2$   
c.  $8 \times 2$   
d.  $2 \div 8$
- \_\_\_\_ 30. thirty-three increased by eleven  
a.  $33 + 11$   
b.  $33 - 11$   
c.  $33 \div 11$   
d.  $33 \times 11$
- \_\_\_\_ 31. the difference of twenty-one and seven  
a.  $21 \div 7$   
b.  $7 \div 21$   
c.  $21 - 7$   
d.  $7 - 21$

Name: \_\_\_\_\_

\_\_\_\_ 32.  $\frac{a}{3} + 14 = 25$

a.  $a = 33$

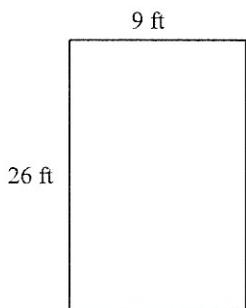
b.  $a = \frac{25}{3}$

c.  $a = 117$

d.  $a = \frac{11}{3}$

*Find the perimeter of the rectangle.*

\_\_\_\_ 33.



- a. 61 ft  
b. 35 ft

- c. 70 ft  
d. 234 ft

*Find each sum.*

\_\_\_\_ 34.  $1 + (-14)$

- a. -15  
b. 15

- c. -13  
d. 13

\_\_\_\_ 35.  $3 + (-50)$

- a. -47  
b. 53

- c. -53  
d. 47

\_\_\_\_ 36. Tonisha's test scores are 87, 94, 79, 86, and 94. What is the average of her test scores?

- a. 88  
b. 94

- c. 87  
d. 440

\_\_\_\_ 37. Order the integers  $\{10, -16, -4, 17, 2\}$  from least to greatest.

- a.  $\{-16, -4, 2, 10, 17\}$   
b.  $\{2, -4, -16, 10, 17\}$

- c.  $\{17, 10, 2, -4, -16\}$   
d.  $\{-4, -16, 2, 10, 17\}$

*Solve each problem by writing and solving an equation.*

\_\_\_\_ 38. Isabel and Ruth scored a total of twenty-two points in their last basketball game. Ruth scored two more points than Isabel. How many points did Isabel score?

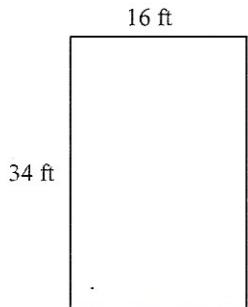
- a.  $2x - 2 = 22; x = 12$   
b.  $2x + 2 = 22; x = 12$

- c.  $2x + 2 = 22; x = 10$   
d.  $x + 2 = 22; x = 20$

Name: \_\_\_\_\_

*Find the area of the rectangle.*

\_\_\_\_ 39.



- a.  $100 \text{ ft}^2$
- b.  $1088 \text{ ft}^2$
- c.  $544 \text{ ft}^2$
- d.  $50 \text{ ft}^2$

*Find the value of each expression.*

\_\_\_\_ 40.  $9(3) + (6 + 2)$

- a. 35
- b. -9
- c. 99
- d. 20

\_\_\_\_ 41. Replace each  $\bigcirc$  with  $<$ ,  $>$ , or  $=$  to make a true sentence.

$$-18 \bigcirc 5$$

- a.  $<$
- b.  $>$
- c.  $=$