

*** Copy the problems, show all work, and write all answers on notebook paper. ***

EXPONENTS:

Write each product using an exponent.

1. $5 \times 5 \times 5 \times 5 \times 5$ 2. $12 \times 12 \times 12$ 3. $9 \times 9 \times 9 \times 9$ 4. 7×7

Write each power as a product of the same factor. Then find the value. SHOW ALL STEPS!

5. 9^4 6. 2^5 7. 4^0 8. 6^1 9. 0.5^3

ORDER OF OPERATIONS:

Find the value of each expression. SHOW ALL STEPS!

10. $22 - 17 + 8$ 11. $6 \times (9 + 2) - 5$ 12. $55 \div (5 + 6) + 7 \times (2 + 14)$

13. $26 + 6^2 \div 4$ 14. $12 \div 4 + (5^2 - 6)$ 15. $(8 - 6)^4 + 10 \times 9$

ALGEBRAIC EXPRESSIONS:

Evaluate each expression for the given values of the variables. SHOW ALL STEPS!

16. $24 \div a$ if $a = 6$ 17. $2b - 10$ if $b = 13$ 18. $c^2 + c$ if $c = 8$ 19. $5d^3$ if $d = 4$

Evaluate each expression if $w = 6$, $x = 8$, and $y = 12$. SHOW ALL STEPS!

20. $2w + 4x$ 21. $3y^2 + 5w$ 22. $y + 3 + wx$

Define a variable. Then write each phrase as an algebraic expression.

23. 3 miles less than Ray 24. renting a video game and paying a \$2 late fee 25. the length of a painting that is 4 times the width

26. buying 5 books and a \$2.50 magazine 27. half as much money as her brother spent 28. 8 more than 2 times her daughter's age

DISTRIBUTIVE PROPERTY:

Use the distributive property to rewrite each expression.

29. $4(x + 3)$ 30. $8(5 + y)$ 31. $3(7m - 6)$ 32. $7(9 + 2k)$

Rewrite each expression by factoring out the GCF.

33. $6v - 30$ 34. $28 + 4d$ 35. $48 - 36p$ 36. $9e + 15$

Evaluate each expression if $x = 12$.

1. $x + 7$ 2. $38 - x$ 3. $8x$ 4. $276 \div x$ 5. x^2

Evaluate each expression for the given values of the variables.

6. $f - 9$ if $f = 11$ 7. $p + 16$ if $p = 23$ 8. $25 - g$ if $g = 12$

9. $8w$ if $w = 7$ 10. $9 + 2y$ if $y = 8$ 11. $6x - 3$ if $x = 4$

Apply the distributive property to produce an equivalent expression.

1) $4(10 + 2m)$

2) $80 + 30n$

3) $4(4 + 6u)$

4) $9(4p + 5)$

5) $15b + 13c - 12b + 10c + 8$

6) $18t + 60$

7) $40 + 28z$

8) $19a + 2b + 11a - b$

9) $4(8v + 9)$

10) $18p + 8q + 2p - 7q$

ANSWERS

- | | |
|-----|-------|
| 1. | _____ |
| 2. | _____ |
| 3. | _____ |
| 4. | _____ |
| 5. | _____ |
| 6. | _____ |
| 7. | _____ |
| 8. | _____ |
| 9. | _____ |
| 10. | _____ |

Write an algebraic expression for each phrase given.

- 1 20 decreased by 17
- 2 twice 6
- 3 the product of 4 and 5
- 4 10 increased by 8
- 5 10 less than 17
- 6 the quotient of 96 and 8
- 7 half of 14
- 8 the difference of 10 and 5
- 9 Sam ate 5 more pickles than Robert
- 10 The temperature is 5 degrees greater than yesterday.
- 11 Howard has 30 baseball cards to distribute equally among his friends.
- 12 Auburn won 5 times as many games as Alabama.
- 13 Katie completed 6 less problems than Amy completed.
- 14 George is 9 years less than two times Eric's age.
- 15 One-third of the class earned an A.

(2)

NAME _____

DATE _____

PERIOD _____

Skills Practice

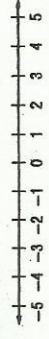
Integers and Absolute Value

Write an integer for each situation.

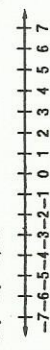
1. a \$5 discount
2. a growth of 2.5 centimeters
3. rise of 1,000 feet
4. loss of 6 pounds
5. price drop of \$12
6. pay raise of \$1 per hour

Graph each set of integers on a number line.

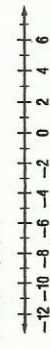
7. $\{-2, 0, 4\}$



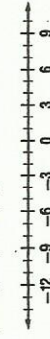
9. $\{5, -5, -6, 2\}$



11. $\{-11, -7, 3, 6\}$



12. $\{-10, -8, -14, 8\}$



Evaluate each expression.

13. $|-4|$

15. $|10 - 5|$

17. $|16| - |-2|$

19. $|-26| + |-17|$

14. $|800|$

16. $|-18| - |13|$

18. $|-11| + |0|$

20. $|-1| + |-1|$



Determine which choice best answers the question.

1) Which choice shows the values from greatest to least?

- A. 5, 3, -4, 2
- B. -4, -2, 3, 5
- C. -5, 3, 2, -4
- D. 3, 2, 5, -4

2) Which choice shows the values from least to greatest?

- A. 9, 6, -5, 4
- B. 6, 4, 9, -5
- C. 9, -5, 6, 4
- D. -5, 4, 6, 9

3) Which choice shows the values from greatest to least?

- A. -56, -74, -50, -68
- B. -74, -68, -56, -50
- C. -50, -56, -68, -74
- D. -68, -74, -50, -56

4) Which choice shows the values from greatest to least?

- A. -64, -72, -60, -80
- B. -80, -72, -64, -60
- C. -60, -64, -72, -80
- D. -80, -72, -60, -64

Answers section with numbered lines 1 through 7 for writing answers.

9-3 The Coordinate Plane

Use the coordinate plane to answer questions 1-12.

Name the quadrant where each point is located.

1. D _____

2. P _____

3. Y _____

4. B _____

5. C _____

6. X _____

7. X _____

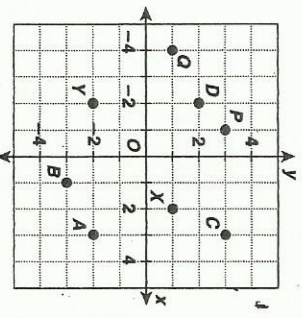
8. A _____

9. P _____

10. Q _____

11. Y _____

12. D _____



Graph each point on the coordinate plane at right.

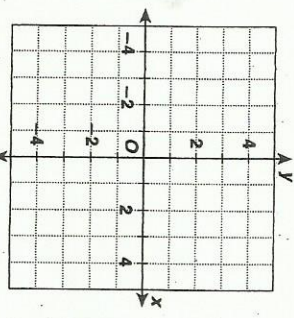
13. X(3, 1)

14. T(-2, -2)

15. C(1, -2)

16. U(0, -3)

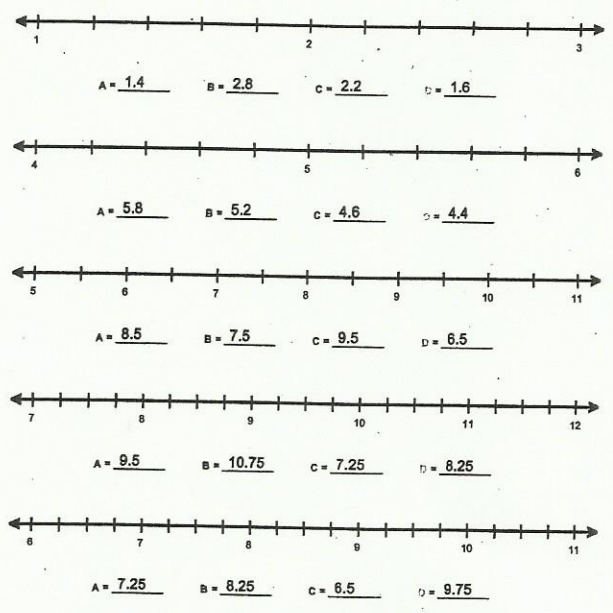
17. P(2, 0)



ANSWERS

Name: _____ Score: _____
Teacher: _____ Date: _____

Decimal Numbers on Number Lines



Name: _____ Score: _____
Teacher: _____ Date: _____

Fractions on Number Lines

