Practice 1-1 .... Algebraic Expressions and the Order of Operations

Write an algebraic expression for each word phrase.

1. 5 less than
   a number n _____

2. 15 more than the absolute
   value of a number _____

3. the number of
   minutes in n hours _____

4. 5 more than a number,
   divided by 9 _____

5. 3 more than the product
   of 8 and a number _____

6. 3 less than the absolute
   value of a number, times 4 _____

Write an algebraic expression for each situation. Explain what the variable represents.

7. the amount of money Waldo has if he has
   $10 more than Jon

   _____

   _____

8. the amount of money that Mika has if she
   has some quarters

   _____

   _____

9. how much weight Kirk can lift if he lifts
   30 lb more than his brother

   _____

   _____

10. how fast Rya runs if she runs 5 mi/h slower
    than Danae

    _____

    _____

Write a word phrase that can be represented by each variable expression.

11. $n \div (4)$

    _____

12. $n + 4$

    _____

13. $3n$

    _____

14. $n - 8$

    _____

Evaluate each expression for $n = 5.6, x = 2.4,$ and $y = 4.$

15. $6(n + 8)$ _____

16. $29y - 15$ _____

17. $(x + n) \div y$ _____

18. $(24 \div x) + 18$ _____

19. $(6 \cdot 8 + y) \cdot n$ _____

20. $xn + y$ _____

21. $6 \cdot 8 + y \cdot n$ _____

22. $6(8 + y) \cdot n$ _____

23. $12 \div x + xy$ _____

24. $4n + x(y + 1)$ _____

Puzzle 1-1

Algebraic Expressions and the Order of Operations

Look at the puzzle. The object is to work your way through the puzzle from the Start to the Exit. To do this, apply the rule $2a - 2 = b$. Circle b. Rename b as a and continue applying the rule until you exit the maze.

68	1,502	280	19	1,026	**Exit**
34	66	130	258	514	
18	5	$a = 3$ **Start**	3	143	
10	6	4	8	12	
24	36	58	1,268	142	