

## Translating/Evaluating Algebraic Expressions

Score \_\_\_\_\_ Per \_\_\_\_\_

Circle the operation that the statement implies.

- |              |   |   |   |   |                 |   |   |   |   |
|--------------|---|---|---|---|-----------------|---|---|---|---|
| 1. Less than | + | - | × | ÷ | 2. Difference   | + | - | × | ÷ |
| 3. Quotient  | + | - | × | ÷ | 4. Increased by | + | - | × | ÷ |
| 5. Product   | + | - | × | ÷ | 6. More than    | + | - | × | ÷ |
| 7. Sum       | + | - | × | ÷ | 8. Decreased by | + | - | × | ÷ |

Fill in the table with either the missing *statement* or *mathematical expression*.

	Statement	Mathematical Expression
9.	An unknown number	
10.	7 more than $x$	
11.		$z + 9$
12.	7 decreased by a number	
13.		$\frac{24}{n}$
14.	The difference of a number and 6	
15.		$3^2$
16.	A number cubed	
17.	The quotient of $n$ and 6 is equal to 47	
18.		$10 \times 5$
19.	The sum of twice a number and 6	
20.		$x - 3$

21. What does *substitute* mean to do? \_\_\_\_\_  
 \_\_\_\_\_

22. What does *evaluate* mean to do? \_\_\_\_\_  
 \_\_\_\_\_

Fill in the following table. Show your work and circle your answer.

Expression	Substitute	Evaluate
<i>EX.</i> $4x - 3; x = 8$	$4(8) - 3$	$4(8) - 3 = 32 - 3 = 29$
$-2x + 1; x = 4$	23. _____	24. _____
$-x + 5; x = -2$	25. _____	26. _____
$x^2; x = -5$	27. _____	28. _____

Evaluate the following expressions for the given variables.

29.  $6a - 11; a = 0$

30.  $g + 3g; g = 5$

31.  $-y - 9; y = 4$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

32.  $-x^2 + 1; x = 3$

33.  $-4h + 3 + 2h; h = -1$

34.  $\sqrt{b + 4}; b = 12$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

35. If  $2x$  evaluates to 20, what would  $x$  have to be?

36. If  $x - 7$  evaluates to 5, what would  $x$  have to be?