

02- 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.		10×5
19.	The sum of twice a number and 6	
20.		$x - 3$
21.	Five less than a number	
22.		$2x - 9$
23.		$2(k + 4)$
24.	Twice the product of 5 and a number	

25. What does *substitute* mean to do? _____

26. What does *evaluate* mean to do? _____

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

Expression	Substitute	Evaluate
<i>EX.</i> $4x - 3$; $x = 8$	$4(8) - 3$	$4(8) - 3 = 32 - 3 = 29$
$-2x + 1$; $x = 4$	27. _____	28. _____
$-x + 5$; $x = -2$	29. _____	30. _____
x^2 ; $x = -5$	31. _____	32. _____

Evaluate the following expressions for the given variables.

33. $6a - 11$; $a = 0$

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

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

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

37. $-4h + 3 + 2h$; $h = -1$

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

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

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