

Name:

KEY

Period:

PreAlgebra Quiz: Construct "The Story of x " and Evaluating Expressions

Directions: **a)** On the left side evaluate the expression and then write the equation that models the truth statement. **b)** On the right side, construct "The Story of x ".

1. $-5.3x - 3$ Truth Statement $x = -4$

	Story of x
$x = -4$	
Expression: $-5.3x - 3$	① Multiply (5.3)
$-5.3(-4) - 3$	to (-4)
$21.2 - 3$	② Subtract 3
18.2	from the product
Equation: $-5.3x - 3 = 18.2$	③ the solution
When $x = -4$	is 18.2 when
	$x = -4$

2. $\frac{1}{2}x + 6$ Truth Statement $x = -13$

	Story of x
$x = -13$	
Expression: $\frac{1}{2}x + 6$	① Multiply $\frac{1}{2}$
$\frac{1}{2}(-13) + 6$	to (-13)
$-6.5 + 6$	② Add 6 to
-0.5	the product
Equation: $\frac{1}{2}x + 6 = -0.5$	③ The solution
When $x = -13$	is -0.5
	when $x = -13$

3. $\frac{x+4}{5} - 3$ Truth Statement $x = 2$

	Story of x
$x = 2$	
Expression: $\frac{x+4}{5} - 3$	① Add 2 to 4
$\frac{(2+4)}{5} - 3$	② Divide the sum
$\frac{6}{5} - 3$	by 5
-1.8	③ Subtract 3
	from the quotient
Equation: $\frac{x+4}{5} - 3 = -1.8$	④ the solution is
When $x = 2$	-1.8 when $x = 2$

4. $8(2m - 7)$ Truth Statement $m = -4$

	Story of x
$m = -4$	
Expression: $8(2m - 7)$	① Multiply 2 to -4
$8(2(-4) - 7)$	② subtract 7
$8(-8 - 7)$	from the product
$8(-15)$	③ Multiply 8 to
-120	the difference
Equation: $8(2m - 7) = -120$	④ the solution
When $m = -4$	is -120 when
	$m = -4$

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Directions: **a)** On the left side evaluate the expression and then write the equation that models the truth statement. **b)** On the right side, construct "The Story of x ".

5. $4(y - 11) + 4.2$ Truth Statement $y = 7$

	Story of y
$y = 7$	
Expression: $4(y - 11) + 4.2$	① Subtract 11 from 7
$4(7 - 11) + 4.2$	
$4(-4) + 4.2$	② Multiply 4 to (-4)
$-16 + 4.2$	③ Add 4.2 to the product
-11.8	④ the solution
Equation: $4(y - 11) + 4.2 = -11.8$	
When $y = 7$	When $y = 7$

6. $\frac{1}{2}p - 3$ Truth Statement $p = -9$

	Story of p
$p = -9$	
Expression: $\frac{1}{2}p - 3$	① Multiply $\frac{1}{2}$ to (-9)
$\frac{1}{2}(-9) - 3$	② Divide two from the product
$-\frac{9}{2} - 3$	
$-4.5 - 3$	③ Subtract 3 from the quotient
-7.5	④ the solution is -7.5 when $p = -9$
Equation: $\frac{1}{2}p - 3 = -7.5$	
When $p = -9$	

7. $\frac{x-6}{4} + 2.6$ Truth Statement $x = -3$

	Story of x
$x = -3$	
Expression: $\frac{x-6}{4} + 2.6$	① Subtract 6 from -3
$\frac{(-3-6)}{4} + 2.6$	
$\frac{-9}{4} + 2.6$	② Divide 4 from the difference
$-2.25 + 2.6$	③ Add 2.6 to the quotient
0.35	④ The solution is 0.35 when $x = -3$
Equation: $\frac{x-6}{4} + 2.6 = 0.35$	
When $x = -3$	

8. $-6 - 9s$ Truth Statement $s = -5$

	Story of s
$s = -5$	
Expression: $-6 - 9s$	① Multiply (-9) to (-5)
$-6 - 9(-5)$	
$-6 + 45$	② Add (-6) to the product
39	③ the solution is 39 when $s = -5$
Equation: $-6 - 9s = 39$	
When $s = -5$	