**Math 6/7 Unit 9 Post-Test REVIEW** Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Explain the difference between the solutions to  and  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Simplify:  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Simplify:  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Solve: 
4. Solve: 
5. Solve:  Graph your solution:
6. Solve:  Graph your solution:
7. Evaluate -5x – 22 < -37 Graph your solution:

*Use the diagram at the right for questions 10 and 11.*

4*a* + 3

3a

6

9

1. Determine the simplified perimeter of the figure. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Determine the simplified area of the figure. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. “Eight less than the product of a number and three is twenty-two.”

a. Write the statement below as an algebraic equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. What is that number? (Show steps)

1. Six more than twenty times a number is 206.
   1. Write an equation to represent this problem: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. What is that number? (Show steps)
2. Which equation and solution represent this situation?

Abbie and Ben ride their bikes each day for exercise. Ben rides two miles more than Abbie each day. If together they ride 9 miles, how many miles does Ben ride each day?

A. 2(x + x) = 9, Ben rides 3.5 miles C. x² + x = 9, Ben rides 6 miles

B. 2x + x = 9, Ben rides 5.5 miles D. x + (x + 2) = 9, Ben rides 5.5 miles

1. James has spent $20 of his $35 video store gift card. He plans on using the remaining balance to rent video games. If the games cost $2.50 each to rent, how many games can he rent? Write an equation AND solve.
2. Which of the following shows the solution to ?

|  |  |  |  |
| --- | --- | --- | --- |
| A. | -10  -9  -8  -7 | C. | -13  -12  -11  -10 |
| B. | -10  -9  -8  -7 | D. | -13  -12  -11  -10 |

16. Stephen owns a bicycle rental stand at the beach. He uses the equation  to determine *c*, how much he will charge to rent a bicycle for *h* hours. Which of the following is a reasonable amount someone would pay to rent a bicycle from morning to evening on one day?

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A. | $3.50 | B. | $5.00 | C. | $15.50 | D. | $47.00 |

1. A rectangle has 4 equivalent angles. Find the value of *x* in the diagram below.

90°

90°

90°



1. Elijah is saving for a summer vacation in Florida that costs $550. He has $250 saved and hopes to lifeguard at $20 per hour to earn the rest of the money. Which inequality below describes the number of hours, *h*, he must lifeguard to have enough money for the trip?

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A. |  | B. |  | C. |  | D. |  |

19. Which property is demonstrated by the equation shown? 4 x (3 x 18) = (3 x 18) x 4

A. distributive property B. commutative property C. associative property D. idk property

20. Which expression is NOT equivalent to -8x - 24?

A. -10x + 2x + 10 + (-34) B. 4(-2x – 6) C. -8(x + 3) D. -8(x – 3)





