

Block 4 Review Homework #2

Name _____ Period _____ Date _____

Part I – Multiple Choice

1. Which of the following word phrases describes the expression $x - 7$?

- A. seven minus x
- B. the quotient of x and seven
- C. the sum of x and seven
- D. seven less than x

2. What is the value of $3x + 4$ when $x = -2$?

- A. -28
- B. -10
- C. -2
- D. 10

3. The sum of h and eight is two. What is the value of h ?

- A. 10
- B. 6
- C. -6
- D. -10

4. What is the solution of the equation below?

$$\frac{x}{5} - 2 = 8$$

- A. $x = 50$
- B. $x = 30$
- C. $x = 2$
- D. $x = -30$

5. Simplify $5(x - 3)$ using the Distributive Property.

- A. $5x - 3$
- B. $5x + 2$
- C. $5x - 15$
- D. $5 + x - 3$

6. Which of the following expressions is $2(x + 3) - 5$ in simplest form?

- A. $2x + 1$
- B. $2x - 2$
- C. $2x + 3 - 5$
- D. $2x$

7. What is the first step that should be taken to solve the equation $4y + 2y = 24$?

- A. Divide both sides of the equation by 4.
- B. Subtract $2y$ from both sides of the equation.
- C. Divide both sides of the equation by 6.
- D. Rewrite $4y + 2y$ as $6y$.

8. What is the solution of the equation below?

$$2m + 6 = 7m + 1$$

- A. $m = \frac{7}{9}$
- B. $m = 1$
- C. $m = 1\frac{2}{5}$
- D. $m = 9$

Part II – Free Response

1. Write an algebraic expression for the phrase “the product of six and w ”. _____

2. Is 4 the solution of the equation $2x - 1 = 7$? _____

Evaluate each expression.

3. $3h + 5$ when $h = 4$ _____

4. $\frac{x}{3} - 2$ when $x = -9$ _____

Simplify each expression.

5. $5(x + 6)$

6. $8 + 2(x - 4) - 5$

Solve each equation using inverse operations. Show all work and check your solution.

7. $4x = -24$

8. $3y - 6 = 18$

9. $2m - 6m = 40$

Solve each equation using inverse operations. Show all work and check your solution.

10. $3d + 2 = 5d - 16$

11. $-3x + 8x + 10 = -20$

Write an algebraic equation for each sentence. Solve the equation.

12. The sum of y and seventeen is forty-eight.

Equation:

Solution:

13. Three less than the quotient of x and five is two.

Equation:

Solution:

14. An online video game rental site has a Frequent Gamers Plan. It costs \$30 to join and each video game rental for members costs \$2. Non-members pay a rental fee of \$3.50 per rental. Let g represent the total number of video games rented.

a. Write two expressions, one representing the cost for g rentals by a member and the other representing the cost of g rentals for a non-member.

b. For what number of rentals would both plans cost the same amount? Use words and/or numbers to show how you determined your answer.

