Name: _____

8th Grade Weekly Math Review Week 21

Solve each problem. Show your work.

1. $8x + 9x - 8 =$ _____

2. $4(x + 8) =$ _____

3. $(-6, 15)$ and $(1, -6)$ $y = =$ _____

4. $\sqrt{22}$ is between which two whole numbers?

   Answer: _____

5. Linear or nonlinear? $y = x^3$

   Answer: _____

6. $4x + 2x + 9 = 63$ $x =$ _____

7. Solve the system: $2x + 3y = 12$ and $4x - 3y = -12$

   Solution: _____

8. Solve the system: $x + 4y = -16$ and $x - 4y = 8$

   Solution: _____

9. Triangle A(2, 2), B(1, 5), C(1, 1) is reflected over the x-axis. Give the coordinates of the image.

   A′B′C′: _____

10. Triangle A(1, 4), B(4, 2), C(2, −3) is reflected over the y-axis. Give the coordinates of the image.

    A′B′C′: _____

11. Triangle A(−1, 6), B(6, −5), C(0, −4) is translated 2 left and 3 up. Give the coordinates of the image.

    A′B′C′: _____

12. Triangle A(5, 4), B(−5, −2), C(−4, 4) is translated 4 left and 3 up. Give the coordinates of the image.

    A′B′C′: _____

Name: **ANSWER KEY**

8th Grade Weekly Math Review Week 21

Solve each problem. Show your work.

1. $8x + 9x - 8 =$ 17x − 8

2. $4(x + 8) =$ 4x + 32

3. (−6, 15) and (1, −6) y = = −3x − 3

4. √22 is between which two whole numbers?

   Answer: 4 and 5

5. Linear or nonlinear? $y = x^3$

   Answer: nonlinear

6. $4x + 2x + 9 = 63$ x = 9

7. Solve the system: 2x + 3y = 12 and 4x − 3y = −12

   Solution: (0, 4)

8. Solve the system: x + 4y = −16 and x − 4y = 8

   Solution: (−4, −3)

9. Triangle A(2, 2), B(1, 5), C(1, 1) is reflected over the x-axis. Give the coordinates of the image.

   A′B′C′: A′(2, −2), B′(1, −5), C′(1, −1)

10. Triangle A(1, 4), B(4, 2), C(2, −3) is reflected over the y-axis. Give the coordinates of the image.

    A′B′C′: A′(−1, 4), B′(−4, 2), C′(−2,

11. Triangle A(−1, 6), B(6, −5), C(0, −4) is translated 2 left and 3 up. Give the coordinates of the image.

    A′B′C′: A′(−3, 9), B′(4, −2), C′(−2, −1)

12. Triangle A(5, 4), B(−5, −2), C(−4, 4) is translated 4 left and 3 up. Give the coordinates of the image.

    A′B′C′: A′(1, 7), B′(−9, 1), C′(−8, 7)