**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Test Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Assessment 3 Review Guide**

STATION 1: A Quick Review of Finding Absolute Value

1. Greg states that he was scuba diving 550 feet below sea level, and he can write that as |-550|. Is he correct? Why or why not?

STATION 2: Coordinate Planes

2. Plot and label the points on the coordinate grid.

1. (8, -1)
2. (0, -2)
3. (5, -1 ½)
4. (-4, 2)
5. (-9, -2)
6. (2 ½, 0)

3. What is the distance from the point (2, -6) to (2, 9)? **Explain how you determined your answer.**

4. What is the distance from the point (5, 4) to (-10, 4)? **Explain how you determined your answer.**

5. What is the distance from the point (3, 13) to (3, -6**)? Explain how you determined your answer.**

***Use the coordinate plane on the right for #6-9.***

6. Label each of the four quadrants, the x-axis, and the y-axis on the coordinate plane.

7. List the coordinates of:

Point A \_\_\_\_\_ Point D \_\_\_\_\_

Point B \_\_\_\_\_ Point E \_\_\_\_\_

Point C \_\_\_\_\_ Point F \_\_\_\_\_

8. Using Point A:

Draw a reflection over the *y*-axis.

What are the new coordinates of the reflection?

Explain how the ***coordinates*** changed as Point A was reflected.

9. Using Point B:

Draw a reflection over the x-axis.

What are the new coordinates of the reflection?

Explain how the ***coordinates*** changed as Point B was reflected.

STATION 3: Using Coordinate Planes in Real-World Problems

***Use the grid on the right for #10.***

10. Nicole left work, with coordinates (0, 0), walked to the park at (0, 3), then to the beach at (-5, 3). If each unit represents 3 miles, what was the total distance Nicole walked? Justify your response using the grid on the right.

***Use the grid on the right for #11.***

11. Jana started at her friend’s house located at (4, -2) and walked to the store located at (4, 0). She then walked to the park at (0, 0). If each unit represents ½ mile, what was the total distance that Jana walked? Justify your response using the grid on the right.

12. A town wants to move the location of three buildings.

Library

Mall

YMCA

a. Plot and label the locations for the new buildings on the coordinate plane.

Library (2, 0) Mall (5,0) YMCA (2, -4)

b. Use your diagram to determine the distance that each of the buildings moved.

13. Three coordinates of a rectangle are (-4, 2), (2, 2) and (-4, -3).

1. Plot the first three coordinates.
2. What are the coordinates of the fourth vertex?
3. What are the base and height of this rectangle?
4. What is the perimeter this rectangle?
5. What is the area of this rectangle?

14. Plot a rectangle on the grid that has a perimeter between 15 and 30 feet. ***(1 unit = 1 foot)***

1. Label the vertices A, B, C, and D, then identify the coordinates of your rectangle.

**A ( \_\_\_ , \_\_\_\_) B ( \_\_\_ , \_\_\_\_)**

**C ( \_\_\_ , \_\_\_\_) D ( \_\_\_ , \_\_\_\_)**

1. What are the base and height of the rectangle?
2. What is the area of this rectangle? \_\_\_\_\_\_\_\_\_
3. How do you know that the perimeter of your rectangle is between 15 and 30 feet? ***(Be sure to include the perimeter of your rectangle in your answer.)***