

Name: _____

Practice & Problem Solving



Leveled Practice In 10–15, find the distance between each pair of points.

10. $(-2, 8)$ and $(7, 8)$

$$\begin{aligned}
 & \left| \square \right| + \left| \square \right| \\
 &= \square + \square \\
 &= \square \text{ units}
 \end{aligned}$$

11. $(-6.1, -8.4)$ and $(-6.1, -4.2)$

$$\begin{aligned}
 & \left| \square \right| - \left| \square \right| \\
 &= \square - \square \\
 &= \square \text{ units}
 \end{aligned}$$

12. $(12\frac{1}{2}, 3\frac{3}{4})$ and $(-4\frac{1}{2}, 3\frac{3}{4})$

$$\begin{aligned}
 & \left| \square \right| + \left| \square \right| \\
 &= \square + \square \\
 &= \square \text{ units}
 \end{aligned}$$

13. $(-5, -3)$ and $(-5, -6)$

14. $(-5.4, 4.7)$ and $(0.6, 4.7)$

15. $(7\frac{1}{2}, -5\frac{3}{4})$ and $(7\frac{1}{2}, -1\frac{1}{4})$

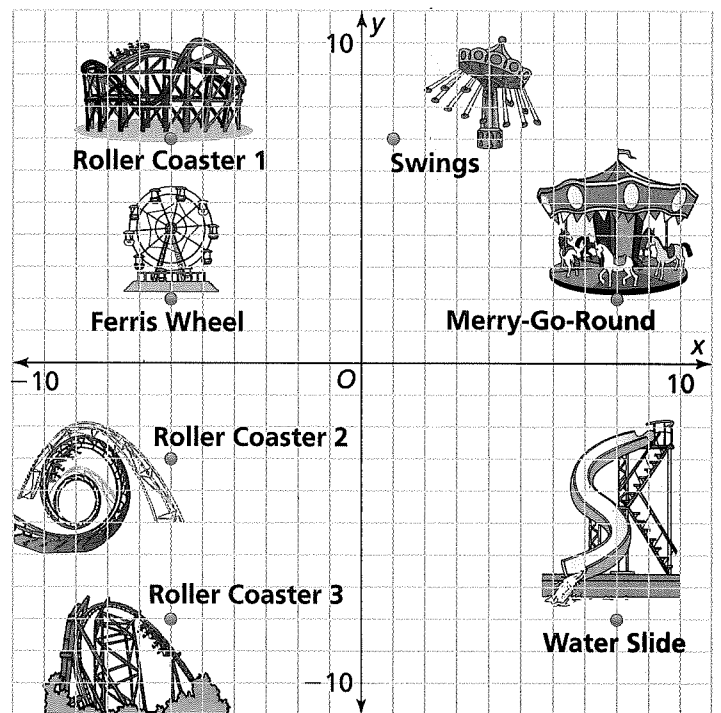
In 16–19, use the map at the right.

16. Find the distance from roller coaster 1 to the swings.

17. Find the distance from the Ferris wheel to roller coaster 3.

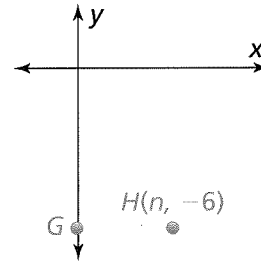
18. Find the total distance from roller coaster 2 to roller coaster 3 and then to the water slide.

19. **Higher Order Thinking** Is the distance from the merry-go-round to the water slide the same as the distance from the water slide to the merry-go-round? Explain.



In 20 and 21, use the coordinate plane at the right.

The graph shows the locations of point G and point H . Point J is graphed at $(n, -3)$. The distance from point H to point J is equal to the distance from point H to point G .



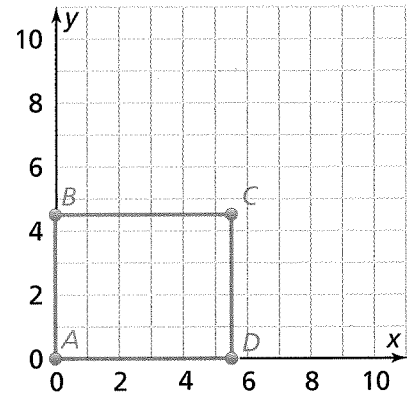
20. What is the distance from point H to point J ?

21. What is the value of n ?

22. **Use Structure** Suppose a , b , and c are all negative numbers. How do you find the distance between points (a, b) and (a, c) ?

23. A scientist graphed the locations of the epicenter of an earthquake and all of the places where people reported feeling the earthquake. She positioned the epicenter at $(-1, 8)$ and the farthest location reported to have felt the quake was positioned at $(85, 8)$. If each unit on the graph represents 1 mile, how far from its epicenter was the earthquake felt?

24. The rectangle $ABCD$ shown on the coordinate plane represents an overhead view of a piece of land. Each unit represents 1,000 feet. What are the dimensions of the rectangular piece of land, in feet?



Assessment Practice

25. Find the two ordered pairs that are 4.5 units apart. Then write those ordered pairs in the second row of the table.

Distance = 4.5 units
$(5.5, -1)$ $(-1.5, 3)$ $(-3, 3)$ $(5.5, 2.5)$ $(-1.5, -1.5)$