1-7 Solve It!

Getting Ready!

In a video game, two ancient structures shoot light beams toward each other to form a time portal. The portal forms exactly halfway between the two structures. Your character is on the grid shown as a blue dot. How do you direct your character to the portal? Explain how you found your answer.
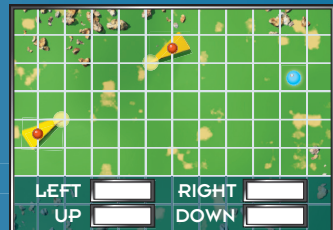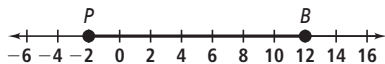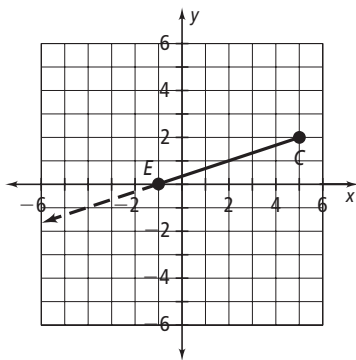
You can only move in horizontal and vertical units.

LEFT _____   RIGHT _____
UP _____   DOWN _____

1-7 Lesson Quiz

1. $\overline{AB}$ has endpoints at -2 and 12. What is the coordinate of its midpoint?

2. Do you UNDERSTAND? The midpoint of $\overline{CD}$ is $E(-1, 0)$. One endpoint is $C(5, 2)$. What are the coordinates of the other endpoint?

3. What is the distance between $P(-4, 3)$ and $Q(6, 1)$? Round to the nearest tenth.

Answers

Solve It!

7 units left, 0.5 unit down; explanations may vary. Sample: The horizontal distance between the two structures is 5 units, and the vertical distance is 3 units. The portal will form at the point $\frac{5}{2}$, or 2.5, units to the right and $\frac{3}{2}$, or 1.5, units up from the leftmost structure. The point is 7 units to the left and 0.5 unit down from the character.

Lesson Quiz

1. 5

2. $D(-7, -2)$

3. 10.2