

## 4.8 Distance and Shapes in the Coordinate Plane

Chapter 4: Integers and the Coordinate Plane

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Class/Period: \_\_\_\_\_

**Problem 4.119 Directions:**

Find each horizontal or vertical distance.

$(0, -6)$  to  $(0, 9)$

**Problem 4.122 Directions:**

Find each horizontal or vertical distance.

$(-8, -1)$  to  $(-2, -1)$

**Problem 4.120 Directions:**

Find each horizontal or vertical distance.

$(8, -2)$  to  $(-4, -2)$

**Problem 4.123 Directions:**

Find each horizontal or vertical distance.

$(5, 4)$  to  $(5, 12)$

**Problem 4.121 Directions:**

Find each horizontal or vertical distance.

$(3, 6)$  to  $(3, -3)$

**Problem 4.124 Directions:**

Find each horizontal or vertical distance.

$(-7, 3)$  to  $(2, 3)$

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**Problem 4.125 Directions:**

Find each horizontal or vertical distance.

Two vertical points are 11 units apart. One is  $(4, -3)$ .  
Give both possibilities for the other.

**Problem 4.127 Directions:**

Find each horizontal or vertical distance.

An axis-aligned rectangle has three vertices  
 $(1, 4)$ ,  $(7, 4)$ ,  $(1, -2)$ .

- A. Find the missing vertex.
- B. Find the perimeter.
- C. Find the area.

**Problem 4.126 Directions:**

Find each horizontal or vertical distance.

Two horizontal points are 7 units apart. One is  $(-2, 5)$ .  
Give both possibilities for the other.

**Problem 4.128 Directions:**

Find each horizontal or vertical distance.

An axis-aligned square has opposite vertices at  $(-3, -3)$   
and  $(2, 2)$ . Find its perimeter.

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**Problem 4.129 Directions:**

Find each horizontal or vertical distance.

Create an axis-aligned rectangle with perimeter 20 units and area 24 square units. Give all four coordinates.

**Problem 4.132 Directions:**

Find each horizontal or vertical distance.

A square has the same perimeter as the rectangle with side lengths 6 and 10. Find the square's side length and area.

**Problem 4.130 Directions:**

Find each horizontal or vertical distance.

Create an axis-aligned rectangle with perimeter 15 units and area 12.5 square units. Give all four coordinates.

**Problem 4.133 Directions:**

Find each horizontal or vertical distance.

Point  $B = (4, 3)$ . List every point on a horizontal or vertical line through  $B$  that is exactly 3 units away.

**Problem 4.131 Directions:**

Find each horizontal or vertical distance.

A rectangle has vertices  $(-6, 5)$ ,  $(4, 5)$ ,  $(4, -1)$ ,  $(-6, -1)$ . Find its perimeter and area.

**Problem 4.134 Directions:**

Find each horizontal or vertical distance.

Three vertices of a rectangle are  $(-4, 3)$ ,  $(4, 3)$ ,  $(-4, -2)$ . Verify that its area is 40 and perimeter is 26.