

Name _____

Date _____

Length of line segment - Guided Lesson Explanation

For all the problems we will be using the distance formula:

We will need to recognize that we will need to use the distance formula here.

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

Explanation#1

$$d = \sqrt{\{6 - (-5)\}^2 + \{(-9) - 4\}^2}$$

$$d = \sqrt{(11)^2 + (13)^2}$$

$$d = \sqrt{121 + 169}$$

$$d = \sqrt{290}$$

$$d = 17.03$$

So, the answer is 17.03

Explanation#2

$$d = \sqrt{(4 - 6)^2 + (5 - 3)^2}$$

$$d = \sqrt{(-2)^2 + (2)^2}$$

$$d = \sqrt{4 + 4}$$

$$d = \sqrt{8}$$

$$d = 2.8$$

So, the answer is 2.83



Name _____

Date _____

Explanation#3

$$d = \sqrt{(8 - 10)^2 + (6 - 12)^2}$$

$$d = \sqrt{(-2)^2 + (-6)^2}$$

$$d = \sqrt{4 + 36}$$

$$d = \sqrt{40}$$

$$d = 6.32$$

So, the answer is 6.32

