Name : _____ Score : _____

Distance Formula

L2S2

Example: Find the distance between the points (4, –6) and (2, 5).

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

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

$= \sqrt{(-2)^2 + (11)^2} = \sqrt{4 + 121} = \sqrt{\mathbf{125}} \approx$ **11.18 units**

Find the distance between the points. Round the answer to two decimal places.

1) (1, 2), (3, 4)

3) (0, –9), $\left(\frac{1}{6}, -10\right)$

5) (7, 2), (–1, –3)

7) $\left(\frac{5}{7}, 0\right)$, (–8, 5)

9) (4, –4), (2, 8)

10) $\left(-6, \frac{1}{5}\right)$, (4, 10)

Name : _____ Score : _____

Answer key

L2S2

Distance Formula

Example: Find the distance between the points (4, –6) and (2, 5).

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

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Find the distance between the points. Round the answer to two decimal places.

1) (1, 2), (3, 4)

$\sqrt{8} \approx 2.83$

3) (0, –9), $\left(\frac{1}{6}, -10\right)$

$\sqrt{1.03} \approx 1.0$

5) (7, 2), (–1, –3)

$\sqrt{89} \approx 9.43$

7) $\left(\frac{5}{7}, 0\right)$, (–8, 5)

$\sqrt{100.93} \approx 10.05$ units

9) (4, –4), (2, 8)

$\sqrt{148} \approx 12.17$ units

13.68 units

5.28 units

7.84 units

3 units

10) $\left(-6, \frac{1}{5}\right)$, (4, 10)

$\sqrt{196.04} \approx 14$ units