Name : _____ Score : _____

# Distance Formula

L2S3

Example: Find the distance between the points (–1, 8) and $\left(\frac{3}{7}, 9\right)$.

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

$= \sqrt{\left(\frac{3}{7} + 1\right)^2 + (9 - 8)^2}$

$= \sqrt{\left(\frac{10}{7}\right)^2 + (1)^2} = \sqrt{\frac{100}{49} + 1} = \sqrt{3.04} \approx$ **1.74 units**

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

1) (10, 9), $\left(0, \frac{5}{8}\right)$

3) (3, –6), (5, 4)

5) $\left(\frac{1}{9}, 7\right)$, (2, 5)

7) (–4, 8), (6, 1)

9) (2, 0), (–10, –5)

10) (9, 4), $\left(6, \frac{7}{8}\right)$

Name : _____ Score : _____

**Answer key**

L2S3

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

1) (10, 9), $\left(0, \frac{5}{8}\right)$

$\sqrt{170.14} \approx 13$

3) (3, –6), (5, 4)

$\sqrt{104} \approx 10.2$

5) $\left(\frac{1}{9}, 7\right)$, (2, 5)

$\sqrt{7.57} \approx 2.7$

7) (–4, 8), (6, 1)

$\sqrt{149} \approx 12.21$ units

9) (2, 0), (–10, –5)

13 units

$\sqrt{73} \approx 8.54$ units

10) (9, 4), $\left(6, \frac{7}{8}\right)$

$\sqrt{18.77} \approx 4.33$ units