

**Distance Formula**

Level 1: S1

Example: Find the distance between the points (5, -1) and (3, 7).

$$\begin{aligned}\text{Distance} &= \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2} \\ &= \sqrt{(3 - 5)^2 + (7 + 1)^2} \\ &= \sqrt{(-2)^2 + (8)^2} = \sqrt{4 + 64} = \sqrt{68} \approx \mathbf{8.25 \text{ units}}\end{aligned}$$

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

1) (1, 3), (5, 7)

\_\_\_\_\_

2) (-8, -9), (-4, -10)

\_\_\_\_\_

3) (10, 6), (1, -4)

\_\_\_\_\_

4) (3, 2), (8, 2)

\_\_\_\_\_

5) (9, -3), (-1, 8)

\_\_\_\_\_

6) (10, 0), (0, 4)

\_\_\_\_\_

7) (-7, -2), (6, 9)

\_\_\_\_\_

8) (-6, 5), (8, -3)

\_\_\_\_\_

9) (-5, -6), (-9, -4)

\_\_\_\_\_

10) (2, 0), (-7, 1)

\_\_\_\_\_

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1) (1, 3), (5, 7)

$\sqrt{32} \approx 5.66 \text{ units}$

2) (-8, -9), (-4, -10)

$\sqrt{17} \approx 4.12 \text{ units}$

3) (10, 6), (1, -4)

$\sqrt{181} \approx 13.45 \text{ units}$

4) (3, 2), (8, 2)

$5 \text{ units}$

5) (9, -3), (-1, 8)

$\sqrt{221} \approx 14.87 \text{ units}$

6) (10, 0), (0, 4)

$\sqrt{116} \approx 10.77 \text{ units}$

7) (-7, -2), (6, 9)

$\sqrt{290} \approx 17.03 \text{ units}$

8) (-6, 5), (8, -3)

$\sqrt{260} \approx 16.12 \text{ units}$

9) (-5, -6), (-9, -4)

$\sqrt{20} \approx 4.47 \text{ units}$

10) (2, 0), (-7, 1)

$\sqrt{82} \approx 9.06 \text{ units}$