Distance Formula

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

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

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

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

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

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

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

5)   (7, 2), (−1, −3)

7) $\left(\dfrac{5}{7}, 0\right)$, (−8, 5)

9)   (4, −4), (2, 8)

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