Distance Formula

Name _____

Score _____

DF:06

Example : Find the distance between the points (–3, –4) and (–1, –2).

Distance = $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$ $x_1 = -3$; $x_2 = -1$; $y_1 = -4$; $y_2 = -2$

$= \sqrt{(-1 + 3)^2 + (-2 + 4)^2}$

$= \sqrt{4 + 4} = \sqrt{8} \approx$ **2.83 units**

Find the distance between each pair of points. Round the answer to the nearest hundredth.

1) (–4, 2) and (–4, –9)

_____

2) (5, 7) and (3, 2)

_____

3) (0, 0) and (1, –3)

_____

4) (–1, –2) and (3, 5)

_____

5) (7, 3) and (–5, –6)

_____

6) (–6, 0) and (–11, 0)

_____

7) (4, 1) and (1, 9)

_____

8) (–2, –2) and (–8, –1)

_____

Distance Formula

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Answer key

DF:06

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Distance = $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$ $x_1 = -3$; $x_2 = -1$; $y_1 = -4$; $y_2 = -2$

$= \sqrt{(-1 + 3)^2 + (-2 + 4)^2}$

$= \sqrt{4 + 4} = \sqrt{8} \approx$ **2.83 units**

Find the distance between each pair of points. Round the answer to the nearest hundredth.

1) (–4, 2) and (–4, –9)

11 units

2) (5, 7) and (3, 2)

5.39 units

3) (0, 0) and (1, –3)

3.16 units

4) (–1, –2) and (3, 5)

8.06 units

5) (7, 3) and (–5, –6)

15 units

6) (–6, 0) and (–11, 0)

5 units

7) (4, 1) and (1, 9)

8.54 units

8) (–2, –2) and (–8, –1)

6.08 units