Math Antics

Worksheets

Name: _____

Date: _____

Calculating Δx and Δy

Instructions: Calculate Δx and Δy for each pair of coordinates below.

Equations: $\Delta x = x_2 - x_1$ $\Delta y = y_2 - y_1$

1   **P1** $(6, -2)$ **P2** $(-3, 5)$

$\Delta x = x_2 - x_1$ $\Delta y = y_2 - y_1$
$= -3 - 6$ $= 5 - -2$
$\boxed{\Delta x = -9}$ $\boxed{\Delta y = 7}$

2   **P1** $(-1, -3)$ **P2** $(-7, 0)$

3   **P1** $(8, -2)$ **P2** $(0, 2)$

4   **P1** $(1, -10)$ **P2** $(4, 4)$

5   **P1** $(0, 2)$ **P2** $(-1, 10)$

6   **P1** $(6, -4)$ **P2** $(7, 3)$

7   **P1** $(7, 7)$ **P2** $(5, 3)$

8   **P1** $(-8, -5)$ **P2** $(-1, -2)$

Math Antics
Worksheets

Using Slope & Distance Equations

Instructions: Use the 'deltas' given below to calculate the slope of the line they form.

Equation: $\text{slope} = \dfrac{\Delta y}{\Delta x}$

1 $\Delta x = 5$, $\Delta y = 3$

$\text{slope} = \dfrac{\Delta y}{\Delta x} = \left(\dfrac{3}{5}\right)$ or 0.6

2 $\Delta x = -2$, $\Delta y = 2$

3 $\Delta x = 5$, $\Delta y = {}^-1$

4 $\Delta x = -12$, $\Delta y = {}^-4$

5 $\Delta x = 8$, $\Delta y = 10$

6 $\Delta x = 3$, $\Delta y = -9$

Instructions: Use the 'deltas' given to calculate the distance between the points that define them.

Equation: $d = \sqrt{(\Delta x)^2 + (\Delta y)^2}$

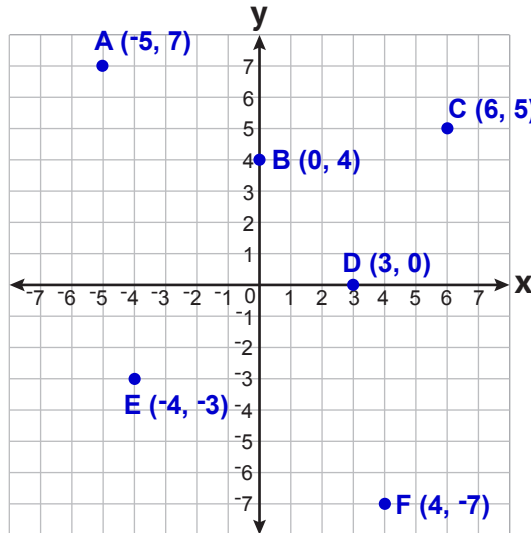**1** $\Delta x = 3$, $\Delta y = {}^-4$

$d = \sqrt{(\Delta x)^2 + (\Delta y)^2} = \sqrt{(3)^2 + (-4)^2}$
$= \sqrt{9 + 16}$
$= \sqrt{25} = \left(5\right)$

2 $\Delta x = -6$, $\Delta y = 1$

3 $\Delta x = 8$, $\Delta y = {}^-3$

4 $\Delta x = {}^-4$, $\Delta y = 2$

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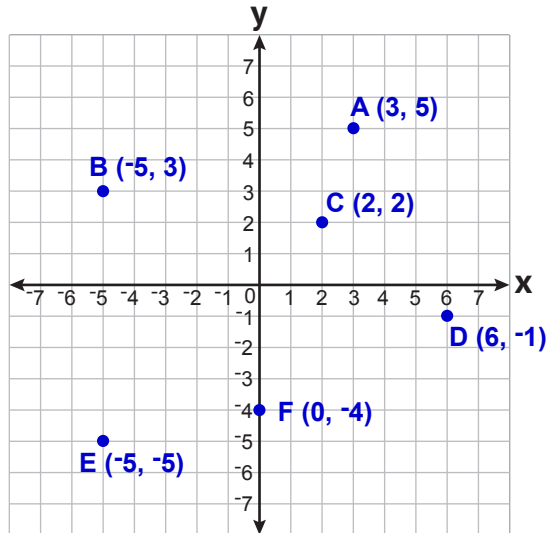## Worksheets

Calculating Slope & Distance - Set 1

Instructions: Refer to the graph below when answering the following questions.

1 Find the distance between points E and C, and the slope of the line they form.

2 Find the distance between points B and D, and the slope of the line they form.

3 Find the distance between points D and F, and the slope of the line they form.

4 Find the distance between points A and B, and the slope of the line they form.

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Calculating Slope & Distance - Set 2

Instructions: Refer to the graph below when answering the following questions.

1 Find the distance between points B and A, and the slope of the line they form.

2 Find the distance between points B and F, and the slope of the line they form.

3 Find the distance between points E and C, and the slope of the line they form.

4 Find the distance between points E and D, and the slope of the line they form.

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