Here to help you…the Distance Formula.

The distance formula finds the distance between two points on a coordinate grid. Given the points: **(x_1, y_1) and (x_2, y_2)** the distance can be found by using this nice formula (basically the Pythagorean Theorem):

$$D = \sqrt{(\Delta x)^2 + (\Delta y)^2}$$

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

Example: Distance between (10, 2) and (3, -4).

$$D = \sqrt{(3 - 10)^2 + (-4 - 2)^2}$$

$$D = \sqrt{(-7)^2 + (-6)^2}$$

$$D = \sqrt{49 + 36}$$

$$D = \sqrt{85}$$

$$D \approx 9.22$$

Be careful, what happens when we square a negative? Keep in parentheses!

You may also use the Pythagorean Theorem if you know how to use it. Use wisely! Think about what Δx and Δy are in terms of the legs of the right triangle!

$$Pythagorean\ thm.:\ \ a^2 + b^2 = c^2$$

Here to help you…the Distance Formula.

The distance formula finds the distance between two points on a coordinate grid. Given the points: **(x_1, y_1) and (x_2, y_2)** the distance can be found by using this nice formula (basically the Pythagorean Theorem):

$$D = \sqrt{(\Delta x)^2 + (\Delta y)^2}$$

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

Example: Distance between (10, 2) and (3, -4).

$$D = \sqrt{(3 - 10)^2 + (-4 - 2)^2}$$

$$D = \sqrt{(-7)^2 + (-6)^2}$$

$$D = \sqrt{49 + 36}$$

$$D = \sqrt{85}$$

$$D \approx 9.22$$

Be careful, what happens when we square a negative? Keep in parentheses!

You may also use the Pythagorean Theorem if you know how to use it. Use wisely! Think about what Δx and Δy are in terms of the legs of the right triangle!

$$Pythagorean\ thm.:\ \ a^2 + b^2 = c^2$$