

## Vocabulary: Distance Formula



### Vocabulary

- **Coordinates** – a set of numbers that names the location of a point.
  - In the two-dimensional coordinate plane, it takes two numbers  $(x, y)$  to specify a location.
  - The  $(x, y)$  coordinates of a point are called an *ordered pair*.
  - The coordinates of the point in the figure shown to the right are  $(3, 4)$ .
- **Distance formula** – a formula that can be used to find the distance  $d$  between two points with coordinates  $(x_1, x_2)$  and  $(y_1, y_2)$ .
  - The distance formula is  $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$ .
- **Hypotenuse** – the side of a right triangle opposite the right angle.
- **Pythagorean Theorem** – a theorem stating that, for any right triangle,  $a^2 + b^2 = c^2$ , where  $a$  and  $b$  are the lengths of the legs of the triangle and  $c$  is the length of the hypotenuse.

