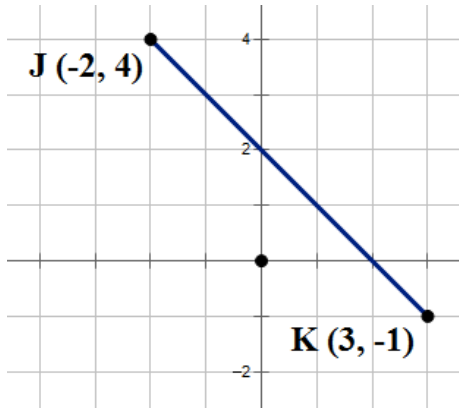


Objective: Determine the distance between two points.

Warm Up:

Find the length of \overline{JK}



Key terms:

Pythagorean theorem:

Distance formula:

Examples:

1. Determine the distance between the following points.

A.) (3, 2) and (-5, 17)

B.) (-1, 4) and (-4, 8)

2. Given the points and a distance, find the value of the variable.

a. $(0,1)$, $(x,4)$ and $d = \sqrt{34}$

b. $(4,-8)$, $(10,y)$ and $d = 5\sqrt{5}$

3. Classify the triangle by side lengths using the given coordinates: $(4,6)$, $(6,1)$ and $(1,3)$.