Pythagorean Theorem

$$leg^2 + leg^2 = hyp^2$$

1

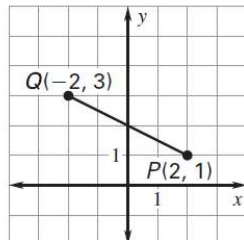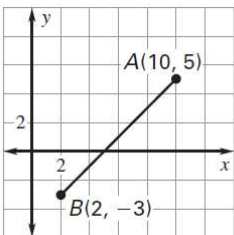- A square has a diagonal with length of 20 cm. What is the measure of each side? Round to the nearest tenths.

2

- Ashley travels 42 miles east, then 19 miles south. How far is Ashley from the starting point? Round to the nearest tenths.

3

- What is the length of the altitude of an equilateral triangle if a side is 12 cm? Round to the nearest tenths.

4

5

The Distance Formula

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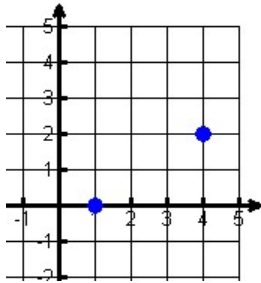
$$D = \sqrt{\left((x_2 - x_1)^2 + (y_2 - y_1)^2\right)}$$

6

1

Example
Find the distance between (1, 4) and (-2, 3).
Round to the nearest hundredths.
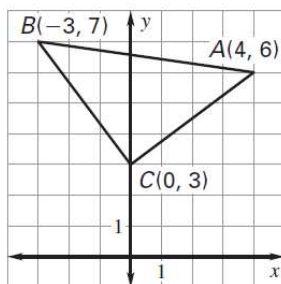
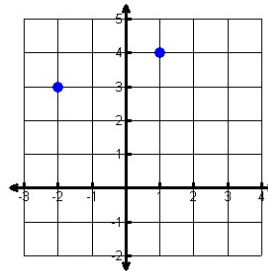$$D = \sqrt{\left((x_2 - x_1)^2 + (y_2 - y_1)^2\right)}$$

7

Example
Find the distance between the points, (10, 5) and (40, 45). Round to the nearest hundredths.
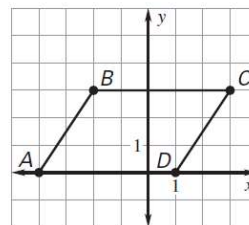
$$D = \sqrt{\left((x_2 - x_1)^2 + (y_2 - y_1)^2\right)}$$

8

3. Find the distance between the points.
Round to the nearest tenths.

9

4. Find the distance between the points.
Round to the nearest tenths.

10

Find the Perimeter

11

Find the Perimeter

12

2