

Pythagorean Theorem & Distance Formula

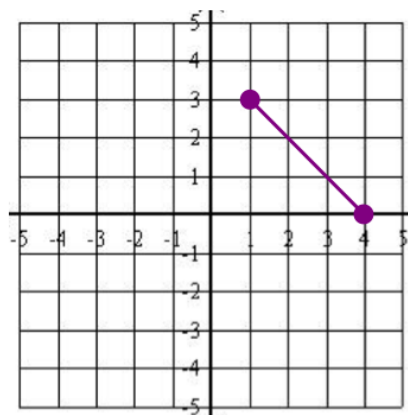
Warm Up – Scavenger Hunt

1	2	3	4	5
6	7	8	9	10
11	12	13	14	

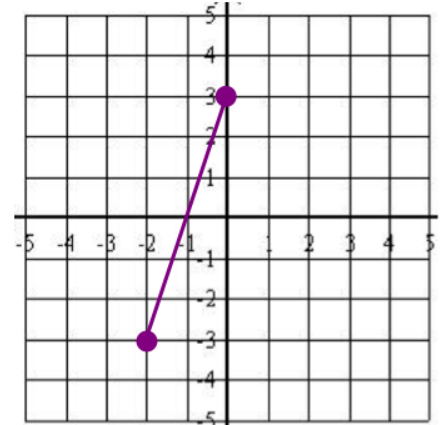
Distance on the Coordinate Plane

Use the Pythagorean Theorem to find the lengths of the following line segments.

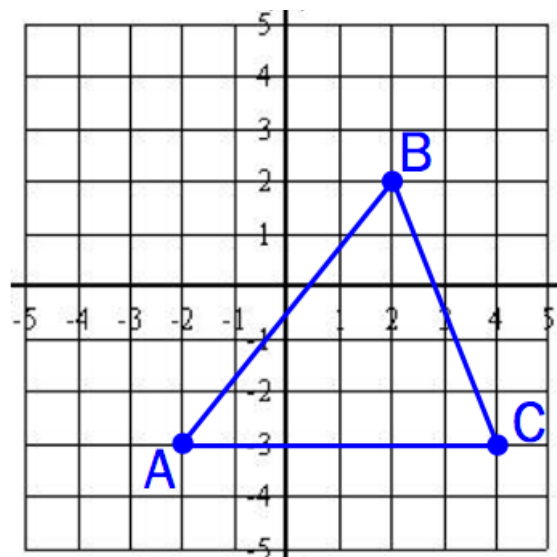
1.



2.



3. Find the perimeter of the triangle ABC.



Distance Formula Review!

The distance d between any two points (x_1, y_1) and (x_2, y_2) is...

$$d = \sqrt{(\quad - \quad)^2 + (\quad - \quad)^2}$$

Find the distance between the given points.

1. $T(1, -5)$ & $V(3, -2)$

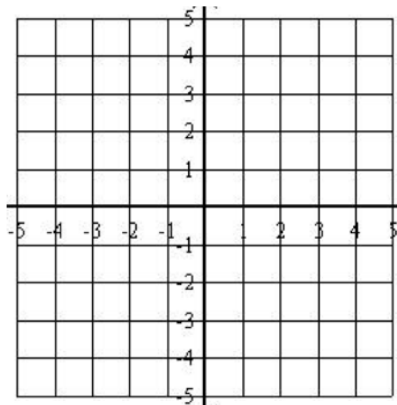
2. $M(2, 1)$ & $N(-5, 8)$

3. \overline{AB} is the diameter of a circle. The coordinates of A are $(17, -1)$ and the coordinates of B are $(10, -9)$. What the length of the diameter of the circle? Then, find the radius.

Pythagorean Theorem vs. Distance Formula

Find the distance between points $A(-1, 5)$ & $B(3, 1)$ using both methods. Show all work and compare the computations.

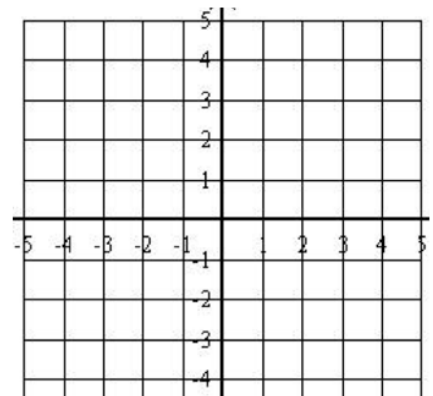
Pythagorean Theorem



Distance Formula

Compare the two methods:

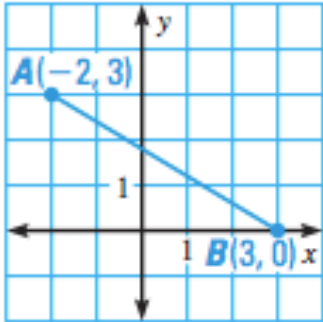
Practice: A triangle has vertices at $(-3, 0)$, $(4, 1)$, and $(4, -3)$. Find perimeter of the triangle using the method of your choice. How would you describe the triangle?



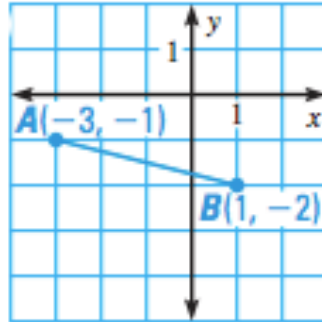
Pythagorean Theorem / Distance Formula HW

Use the Pythagorean Theorem / Distance Formula to find the lengths of the missing sides.

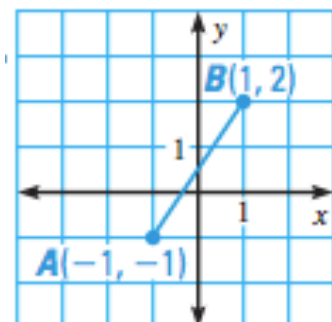
1.



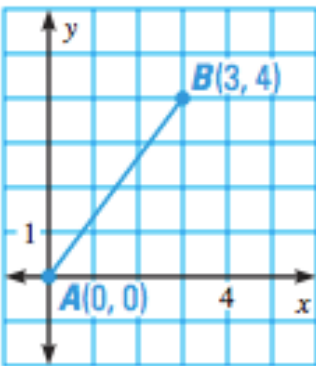
2.



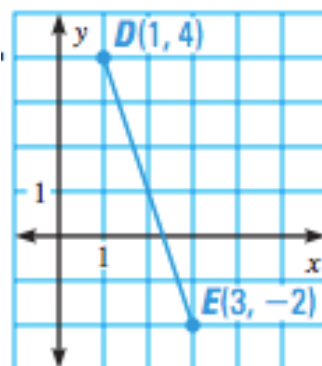
3.



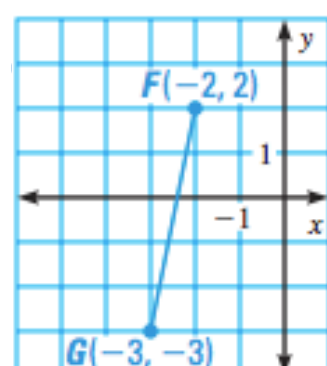
4.



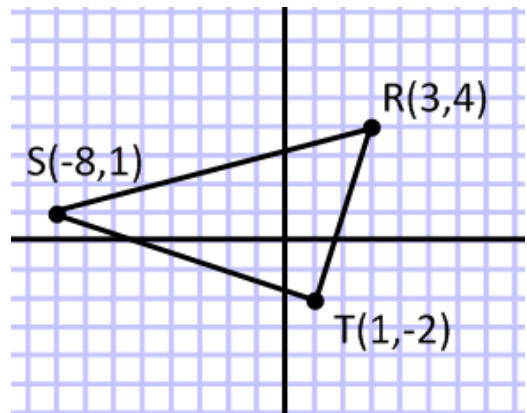
5.



6.



7. Find the perimeter of the figure.



8. Graph triangle FUN, $F(-2, 1)$, $U(1, 3)$, and $N(-2, 5)$. Find the length of each side. Can the triangle be classified as scalene, isosceles, or equilateral?

