

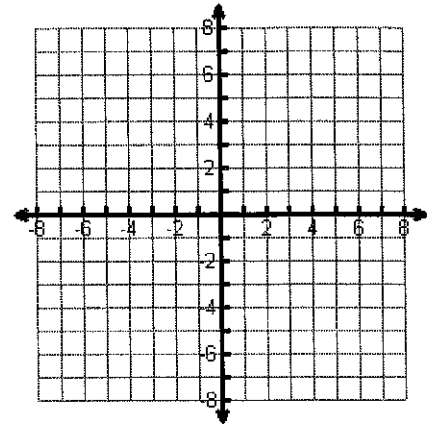
Name: \_\_\_\_\_

*Key*

Date: \_\_\_\_\_

**Task: Proving Triangles****MCC9-12.G.GPE.4** Use coordinates to prove simple geometric theorems algebraically. (Restrict contexts that use distance and slope.)

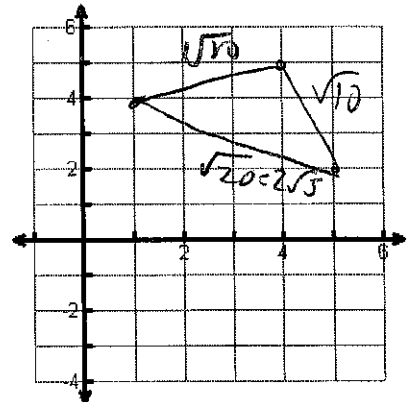
1. Determine the coordinates of a **scalene** triangle. Support your answer mathematically and justify with a drawing on a coordinate grid.



2. Classify the triangle as **scalene**, **isosceles**, or **equilateral** by first find the distances of the 3 sides.

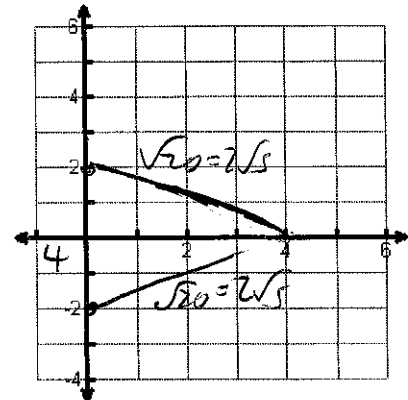
a.  $(1, 4), (4, 5), (5, 2)$

Classify: *Isosceles*  
 Rt.  $\Delta$ : *Yes*



b.  $(0, -2), (0, 2), (4, 0)$

Classify: *Isosceles*  
 Rt.  $\Delta$ : *No*



c.  $(0, 0), (2, 0), (4, -3)$

Classify: *Scalene*  
 Rt.  $\Delta$ : *No*

