**Directions: Use the markers to sketch the locus of points for each scenario below.**

1. How many points are both 4 units from the origin and also 2 units from the line ? Sketch the locus on the coordinate plane below.



1. On the grid below, graph the points that are equidistant from both the *x* and *y* axes and the points that are 5 units from the origin. Label with an **X** all points that satisfy both conditions.



1. On the set of coordinate axes below, graph the locus of points that are equidistant from the lines  and  and also graph the locus of points that are 3 units from the *y*-axis. State the coordinates of *all* points that satisfy *both* conditions.



1. On the set of axes below, graph the locus of points 4 units from  and the locus of points 3 units from the origin. Label with an **X** *any* points that satisfy *both* condition.

