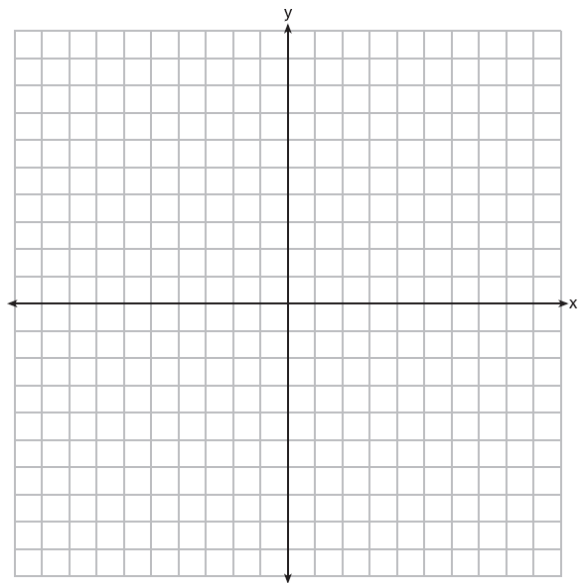


NAME: _____

G.G.23: Graph and solve compound loci in the coordinate plane

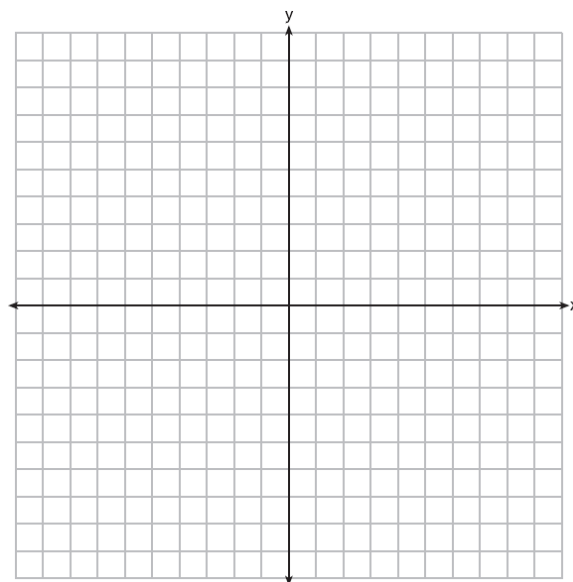
1. 080936ge, P.I. G.G.23

On the set of axes below, sketch the points that are 5 units from the origin and sketch the points that are 2 units from the line $y = 3$. Label with an **X** all points that satisfy both conditions.



2. fall0837ge, P.I. G.G.23

A city is planning to build a new park. The park must be equidistant from school *A* at $(3,3)$ and school *B* at $(3,-5)$. The park also must be exactly 5 miles from the center of town, which is located at the origin on the coordinate graph. Each unit on the graph represents 1 mile. On the set of axes below, sketch the compound loci and label with an **X** all possible locations for the new park.



G.G.23: Graph and solve compound loci in the coordinate plane

- [4] Both loci are drawn correctly, and the three points of intersection are labeled with an **X**.
- [3] Both loci are drawn correctly, but only two points of intersection are labeled.
or [3] Both loci are drawn, but one graphing error is made, but appropriate points of intersection are labeled.
- [2] Both loci are drawn correctly, but the points of intersection are not labeled or are labeled incorrectly.
or [2] Both loci are drawn, but two or more graphing errors are made, but appropriate points of intersection are labeled.
or [2] Both loci are drawn, but one conceptual error is made, but appropriate points of intersection are labeled.
- [1] One locus is drawn correctly, but no further correct work is shown.
or [1] **Xs** are placed appropriately, but no loci are drawn.
- [0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously incorrect procedure.
- [1] _____

- [4] Both loci are drawn correctly and the two points of intersection are labeled with an **X**.
- [3] Both loci are drawn correctly, but only one correct point of intersection is labeled.
or [3] Both loci are drawn, but one graphing error is made, but appropriate points of intersection are labeled.
- [2] Both loci are drawn correctly, but the points of intersection are not labeled or are labeled incorrectly.
or [2] Both loci are drawn, but two or more graphing errors are made, but appropriate points of intersection are labeled.
or [2] One conceptual error is made, such as drawing two parallel lines instead of a circle, but appropriate points of intersection are labeled.
- [1] One locus is drawn correctly, but no further correct work is shown.
or [1] **Xs** are placed appropriately, but no loci are drawn.
- [0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously incorrect procedure.
- [2] _____