1. Describe the locus of points 6 units from $(-2,4)$ in the coordinate plane.
2. Describe the locus of points equidistant from $A^{\prime}$ and $C^{\prime}$, where $A=(2,3), C=(4,-1)$, and $A^{\prime}$ and $C^{\prime}$ result from a reflection in the $x$-axis. How does this locus compare to the locus of points equidistant from $A$ and $C$ ?
[1] a circle with center $(-2,4)$ and radius 6
The line through $(3,-1)$ with slope $-\frac{1}{2}$; the locus of points equidistant from $A$ and $C$ contains $(3,1)$ and has opposite slope, that is slope of $\frac{1}{2}$.
