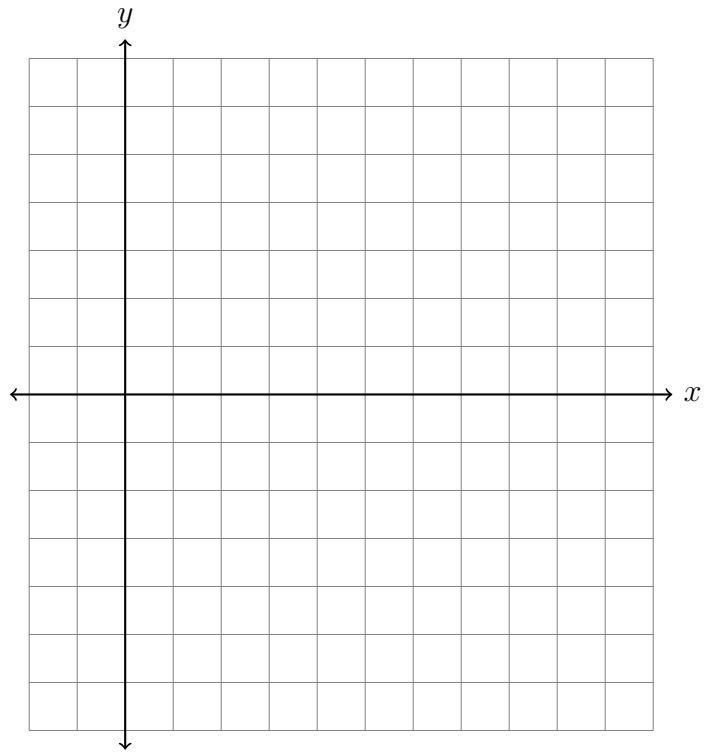


5.6 Classwork: Regents dilation problems

1. After a dilation centered at the origin, the image of \overline{CD} is $\overline{C'D'}$. If the coordinates of the endpoints of these segments are $C(2, 2)$, $D(4, -2)$, $C'(5, 5)$, and $D'(10, -5)$, find the scale factor of the dilation.

Make a table of coordinate pairs and graph the two line segments, \overline{CD} and $\overline{C'D'}$, on the set of axes below.



2. In the diagram below of $\triangle ABC$, D is a point on \overline{BA} , E is a point on \overline{BC} , and \overline{DE} is drawn.

If $BD = 4$, $BA = 10$, and $BE = 6$, what is the length of \overline{EC} so that $\overline{AC} \parallel \overline{DE}$?

