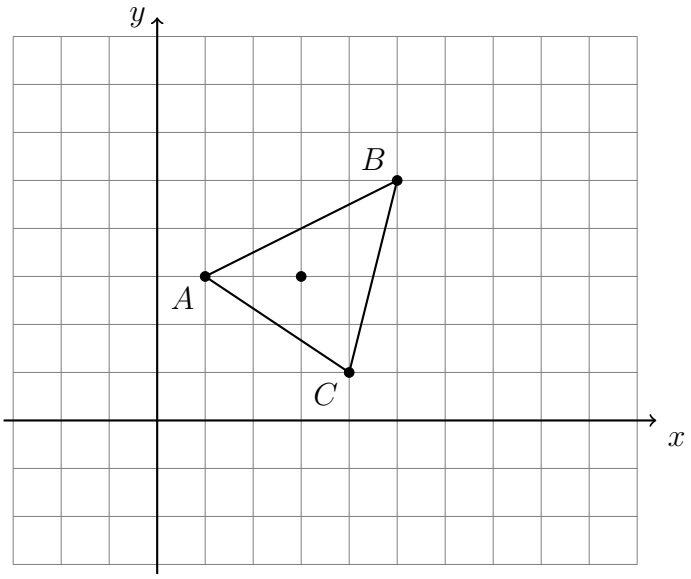
7.12 Do Now: Transformations

1. The line $-3x+4y=8$ is transformed by a dilation centered at the origin. Which linear equation could represent its image?

   (a) $y=\frac{4}{3}x+8$ (c) $y=-\frac{3}{4}x-8$

   (b) $y=\frac{3}{4}x+8$ (d) $y=-\frac{4}{3}x-8$

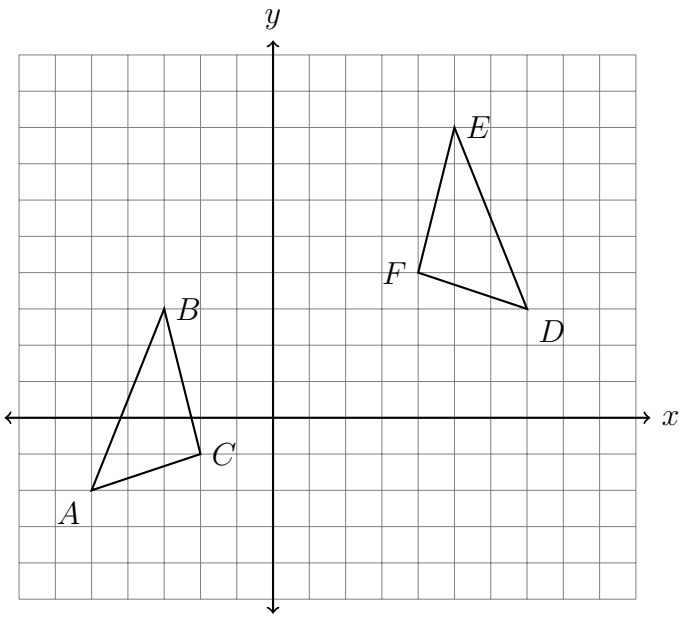
2. Apply a dilation mapping $\triangle ABC \to \triangle A'B'C'$ with a factor of $k=2$ centered at $(3,3)$. Draw and label the image on the grid and make a table of the coordinates.



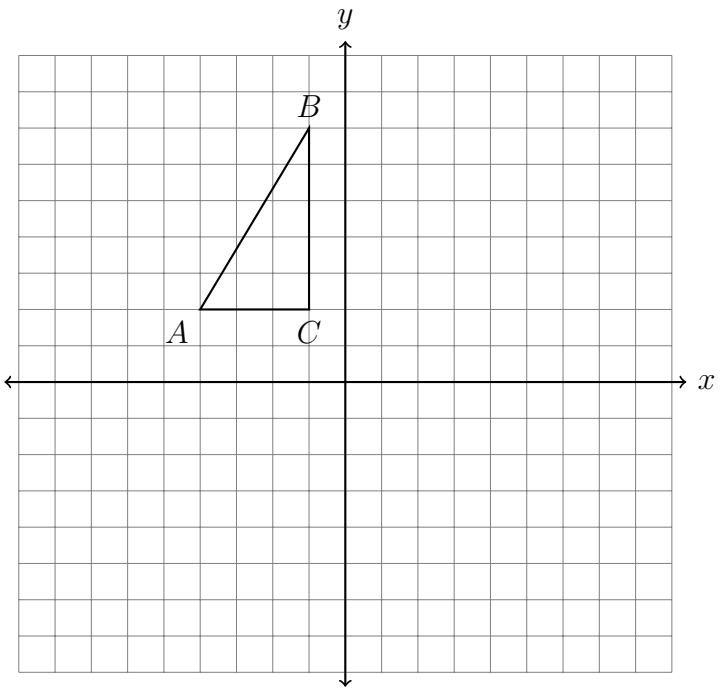
3. Find the image of $P(3,5)$ after a reflection over the x-axis.

4. What transformation maps $\triangle ABC$ onto $\triangle DEF$, shown below? Fully specify the transformation.

2



5. Plot two transformations. Rotate $\triangle ABC$ clockwise 90° around the origin, then reflect the result across the x-axis. Make a table of the coordinates and plot and label the images on the axes.



6. A translation maps $A(-2, 1) \rightarrow A'(5, 1)$. What is the image of $B(3, -1)$ under the same translation?

7. Reflect $\triangle ABC$ over the y-axis. Plot and label the image on the axes and make a table of the coordinates showing $\triangle ABC \rightarrow \triangle A'B'C'$.