

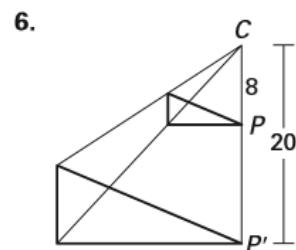
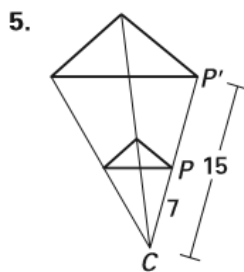
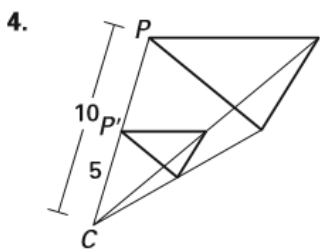
# Practice A

For use with pages 506–513

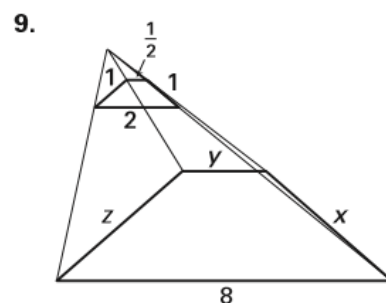
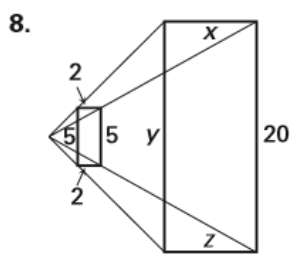
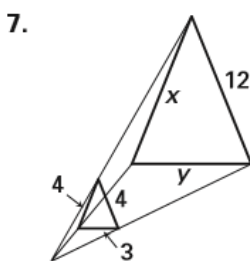
$\triangle ABC$  is mapped onto  $\triangle A'B'C'$  by a dilation at  $D$ . Complete the statement.

- $\triangle ABC$  is (congruent, similar) to  $\triangle A'B'C'$ .
- If  $\frac{DA}{DA'} = \frac{3}{5}$ , then  $\triangle A'B'C'$  is (larger, smaller) than  $\triangle ABC$ , and the dilation is (a reduction, an enlargement).
- If  $\frac{DB}{DB'} = \frac{3}{2}$ , then  $\triangle A'B'C'$  is (larger, smaller) than  $\triangle ABC$ , and the dilation is (a reduction, an enlargement).

Identify the dilation and find its scale factor.

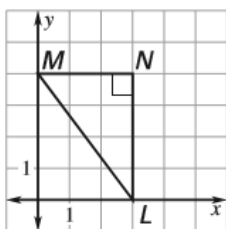


The larger polygon is an enlargement of the smaller polygon. What is the scale factor? Solve for the variables.

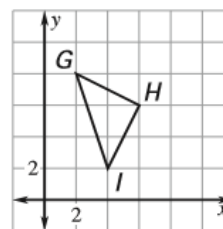


Use the origin as the center of the dilation and the given scale factor to find the coordinates of the vertices of the image of the polygon.

10.  $k = 2$



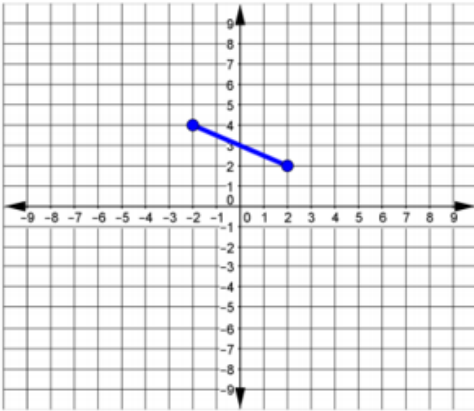
11.  $k = \frac{1}{2}$



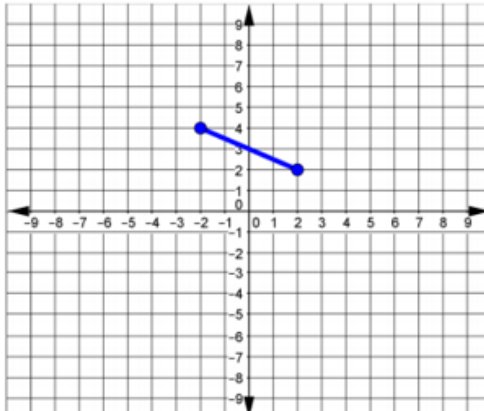
## Dilation From A Point Not The Origin

Dilate the figure with given scale factor ( $c$ ) and center.

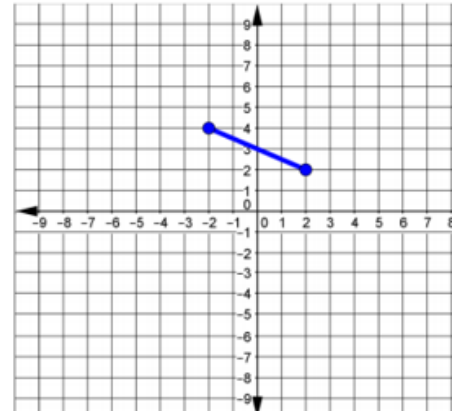
1. Dilate by  $c = \frac{2}{3}$ , center  $(3,4)$



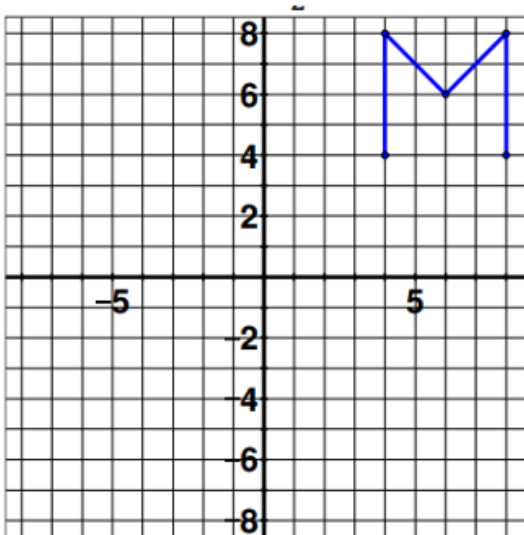
2. Dilate by  $c = \frac{3}{2}$ , center  $(0,0)$



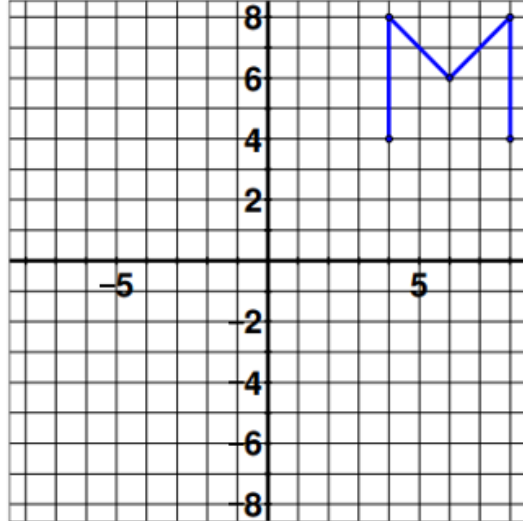
3. Dilate by  $c = 2$ , center  $(4,6)$



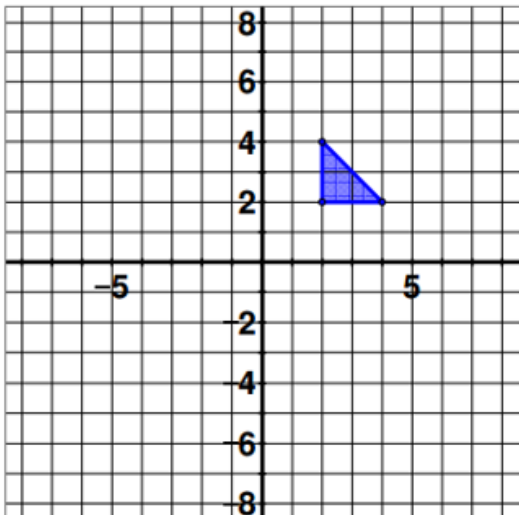
4. Dilate by  $c = \frac{1}{2}$ , center  $(2, 2)$



5. Dilate by  $c = \frac{3}{4}$ , center  $(0,0)$



6. Dilate by  $c = \frac{1}{2}$ , center  $(-6,2)$



7. Dilate by  $c = 3$ , center  $(6,4)$

