

Name _____

Date _____

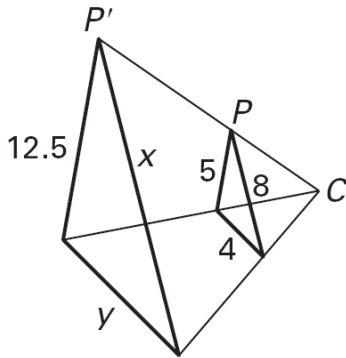
LESSON 9.7

Practice C

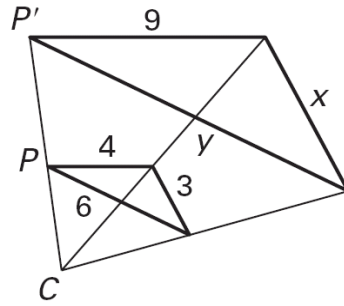
For use with pages 625–633

Find the scale factor. Tell whether the dilation is a *reduction* or an *enlargement*. Then find the values of the variables.

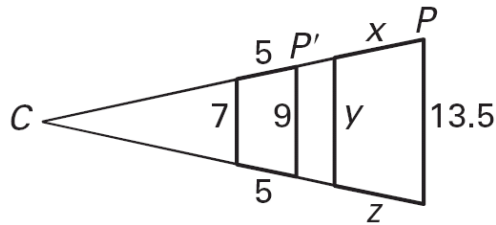
1.



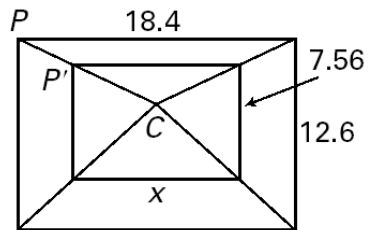
2.



3.

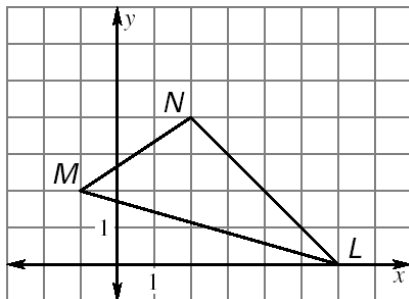


4.

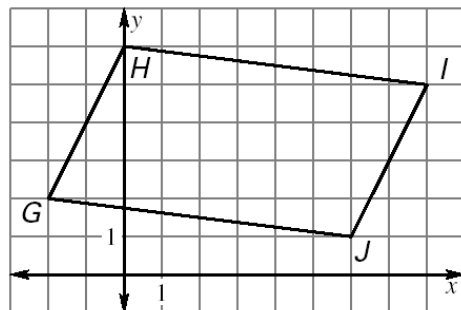


Find the coordinates of the vertices of the image of the polygon after a dilation using the given scale factor and the origin as the center of dilation.

5. $k = \frac{2}{3}$

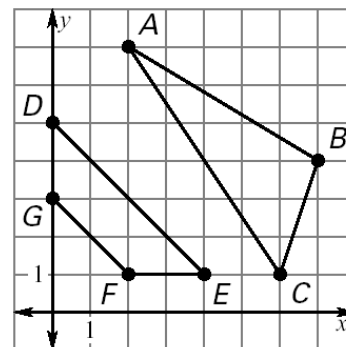


6. $k = \frac{5}{2}$

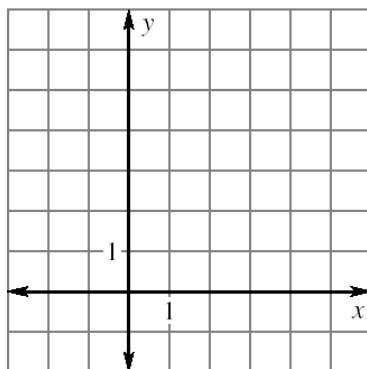


7. An 8-inch by 10-inch photograph is being reduced by a scale factor of $\frac{3}{4}$. What are the dimensions of the new photograph?
8. You are making hand shadows on a wall using a flashlight. You hold your hand 1 foot from the flashlight and 5 feet from the wall. Your hand is parallel to the wall. If the measure from your thumb to ring finger is 6 inches, what will be the distance between them in the shadow?

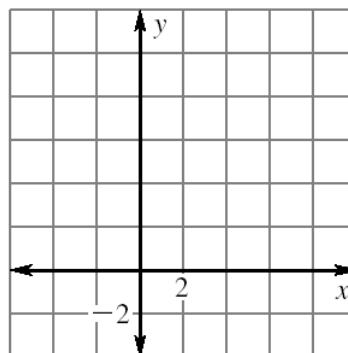
In Exercises 9-11, refer to the diagram. First find the vertices of the image after the dilation described. Then use the vertices to draw the image and preimage in the same coordinate plane.



9. Dilate trapezoid $DEFG$ using center $(0, 1)$ and scale factor 2.



10. Dilate trapezoid $DEFG$ using center $(2, 3)$ and scale factor $\frac{3}{2}$.



11. Dilate trapezoid $DEFG$ using center $(0, 9)$ and scale factor $\frac{1}{2}$.

