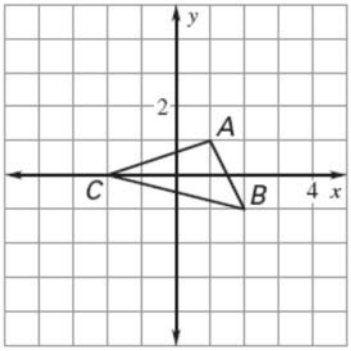
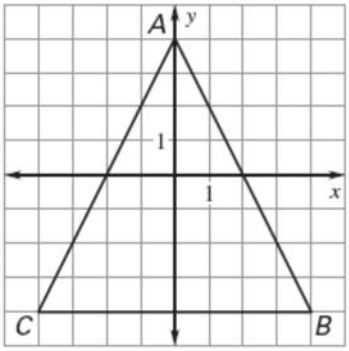
Dilations worksheet Name _____

Draw a dilation of the figure using the given scale factor. (about the origin)

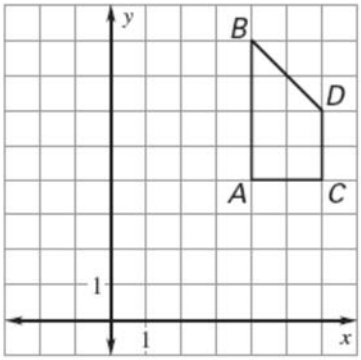
1. $k = 2$



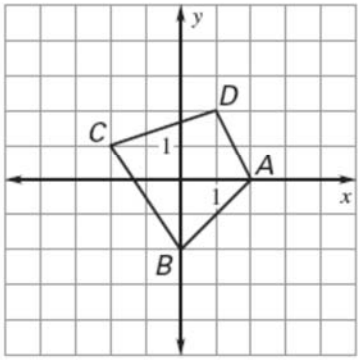
2. $k = \frac{1}{4}$



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

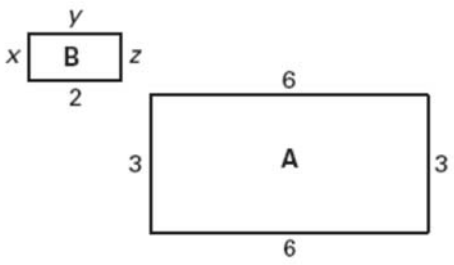


4. $k = 1\frac{1}{2}$

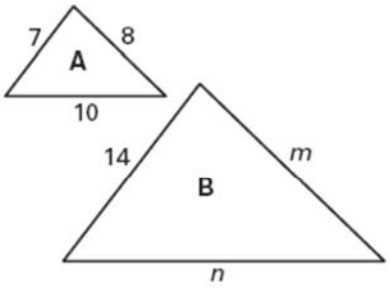


Determine whether the dilation from Figure A to Figure B is a *reduction* or an *enlargement*. Then, find the values of the variables.

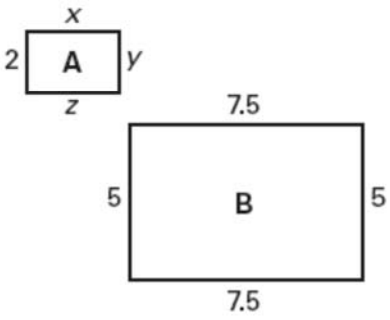
5.



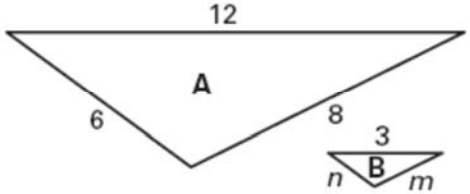
6.



7.

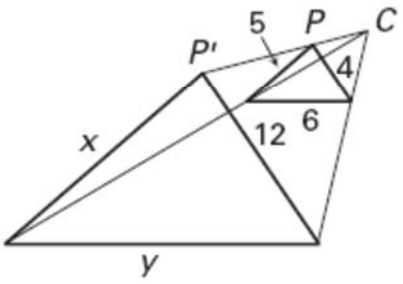


8.

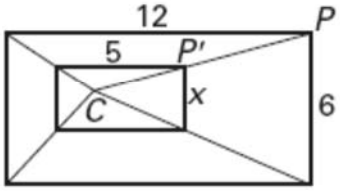


Find the scale factor. Tell whether the dilation is a *reduction* or an *enlargement*. Then find the values of the variables.

9.



10.



Determine if the following scale factor would create an enlargement or a reduction.

11. 3.5 12. $\frac{2}{5}$ 13. 0.6 14. $\frac{6}{7}$ 15. $\frac{4}{3}$ 16. $\frac{5}{8}$

Given the point and its image that are dilated about the origin, determine the scale factor.

17. A(3,6) A’(4.5, 9) 18. G’(3,6) G(1.5,3) 19. B(2,5) B’(1,2.5)

Given a point and scale factor, determine the coordinates of the image of that point dilated about the origin.

20. D(2, -3) s.f.=3 21. E(6, -9) s.f.= $\frac{2}{3}$ 22. J(7, 12) s.f.= $\frac{3}{4}$