

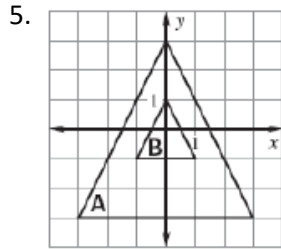
4.1 Dilations

NAME: _____ HOUR: _____

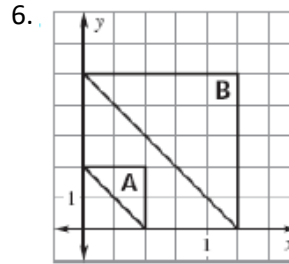
State whether a dilation with the given scale factor is a reduction or an enlargement.

1. $k = 3$ 2. $k = \frac{1}{3}$ 3. $k = \frac{5}{4}$ 4. $k = 0.93$

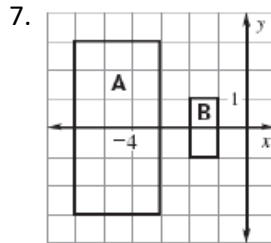
Determine the dilation from Figure A to Figure B is a reduction or an enlargement. Then find its scale factor.



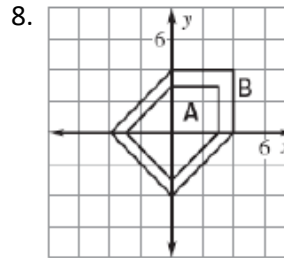
_____ $k =$ _____



_____ $k =$ _____



_____ $k =$ _____



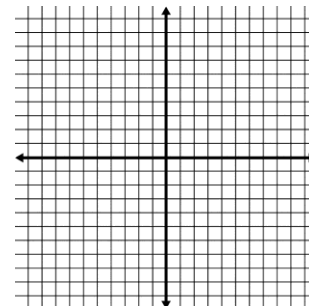
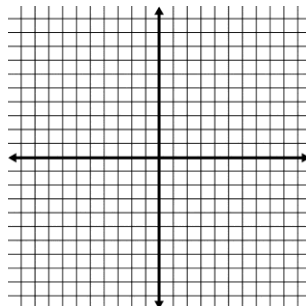
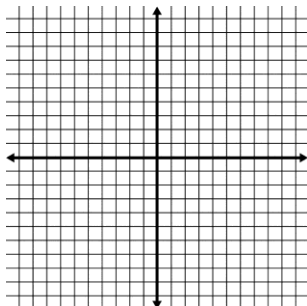
_____ $k =$ _____

Point T is a vertex of a triangle. Point M is the image of T after the dilation. Find the scale factor k of the dilation.

9. T (2 , 7) and M (6 , 21) 10. T (6 , 9) and M (2 , 3) 11. T (-4 , -8) and M (-28 , -56)

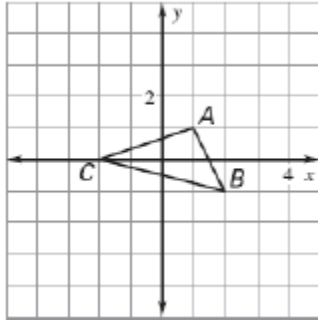
A line segment has the given endpoints. Use the scale factor to write the new ordered pair and sketch line.

12. P(1,1), T(3,1) and $k = 2$ 13. R(4,4), D(8,12), and $k = \frac{3}{4}$ 14. K(0,0), B(-3,2), and $k = 5$

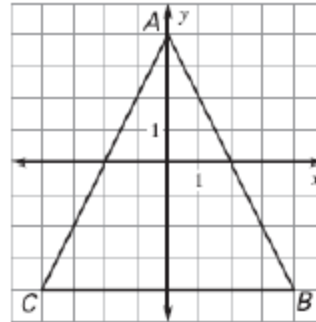


Draw the dilation of the figure using the given scale factor:

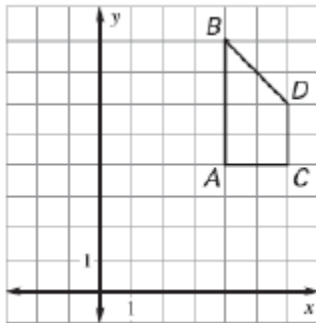
15. $k = 2$



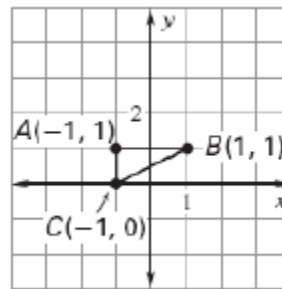
16. $k = \frac{1}{4}$



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

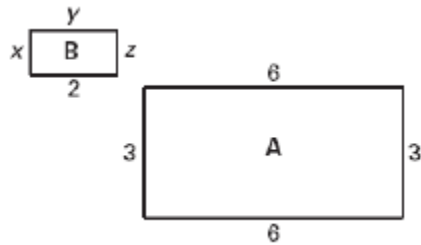


18. $k = 3$



Determine whether the dilation from Figure A to Figure B is a reduction or an enlargement. Then, find the scale factor and the other values for the side lengths.

19.



20.

