

# 2-1 Dilations and Scale Factor

Name \_\_\_\_\_

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

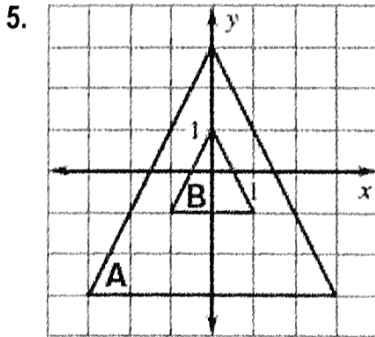
1.  $k = 3$

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

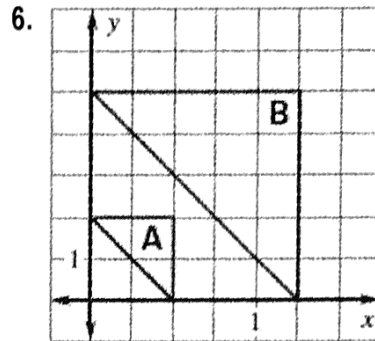
3.  $k = \frac{5}{4}$

4.  $k = 0.93$

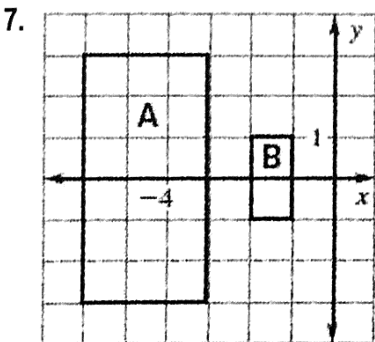
Determine whether the dilation from Figure A to Figure B is a *reduction* or an *enlargement*. Then find its scale factor.



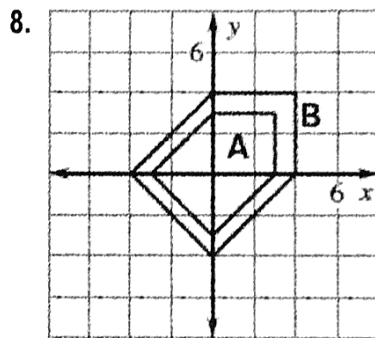
\_\_\_\_\_  $k =$  \_\_\_\_\_



\_\_\_\_\_  $k =$  \_\_\_\_\_



\_\_\_\_\_  $k =$  \_\_\_\_\_



\_\_\_\_\_  $k =$  \_\_\_\_\_

**Point A is a vertex of a polygon. Point R is the image of A after the dilation. Find the scale factor of the dilation.**

9. A (3, 4) and R (9, 12)

10. A (9, 12) and R (6, 8)

11. A (-2, -3) and R (-10, -15)

**A line segment has the given endpoints. Use the scale factor to write the ordered pairs after the dilation.**

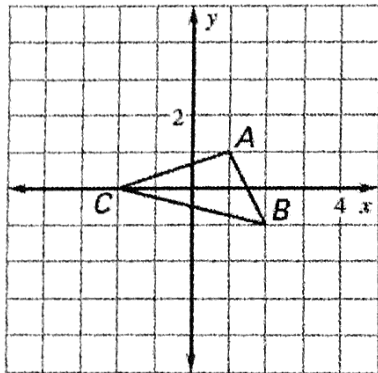
12. A(1, 1), B (3, 1), and  $k = 2$

13. A(4, 4), B(8, 12), and  $k = \frac{3}{4}$

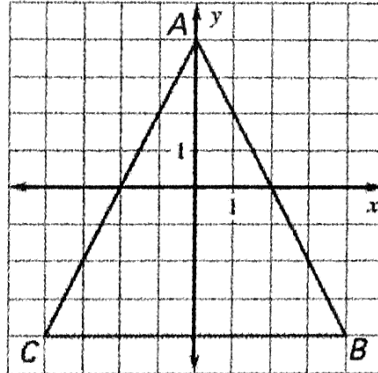
14. A(0, 0), B(-3, 2), and  $k = 5$

Draw a dilation of the figure using the given scale factor.

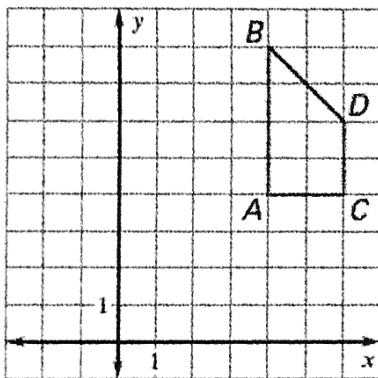
15.  $k = 2$



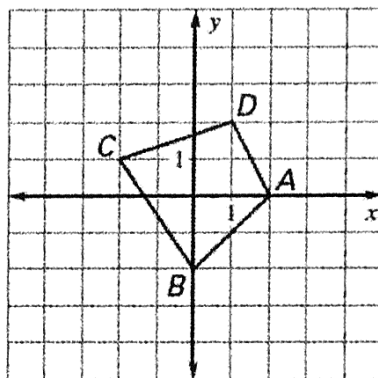
16.  $k = \frac{1}{4}$



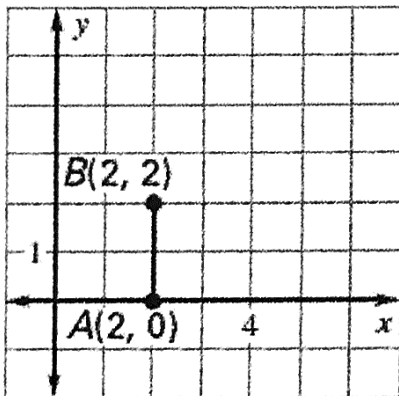
17.  $k = \frac{1}{2}$



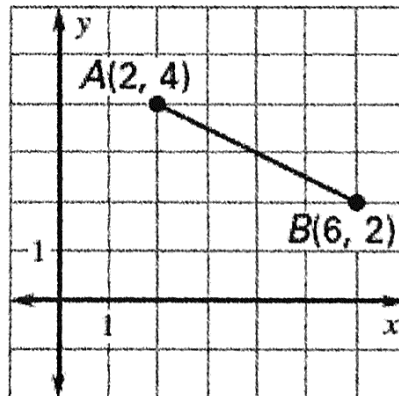
18.  $k = 1\frac{1}{2}$



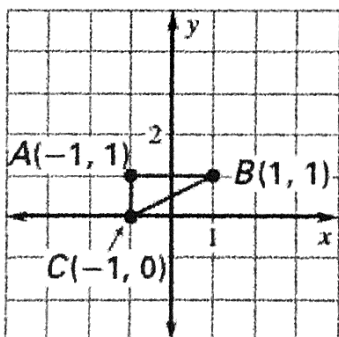
19.  $k = 2$



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



21.  $k = 3$



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

