2-1 Dilations and Scale Factor

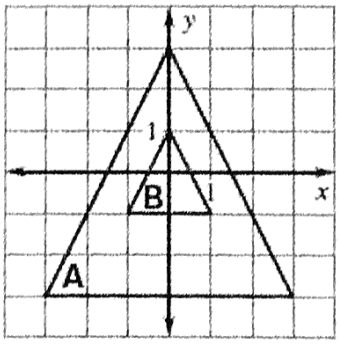
Name _____

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

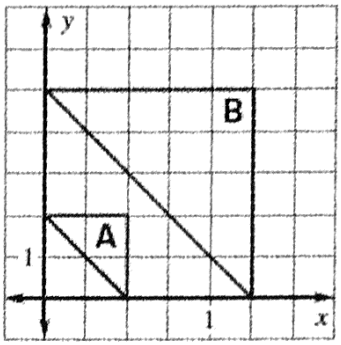
Determine whether the dilation from Figure A to Figure B is a *reduction* or an *enlargement*. Then find its scale factor.

5.



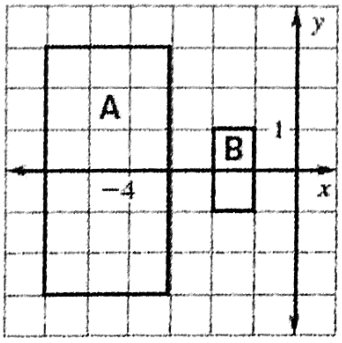
_____ k = _____

6.



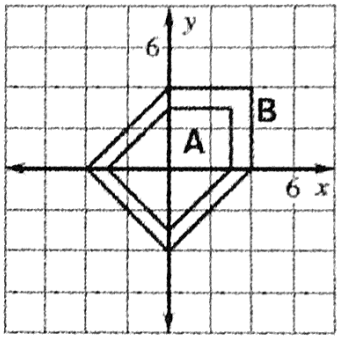
_____ k = _____

7.



_____ k = _____

8.



_____ 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.

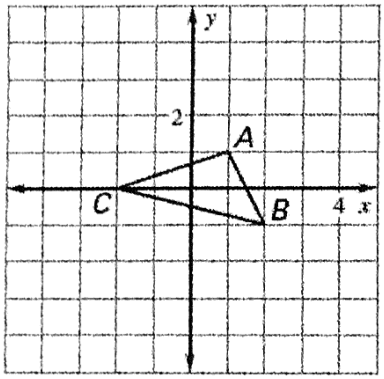
9. A (3, 4) and R (9, 12) **10.** A (9, 12) and R (6, 8) **11.** A (-2, -3) and R (-10, -15)

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

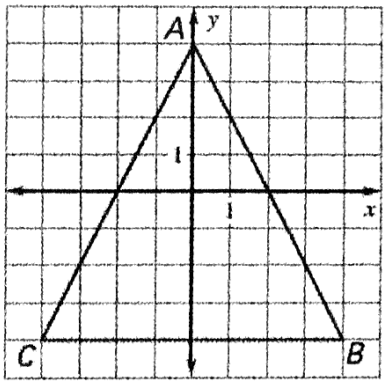
12. A(1,1), B (3, 1), and k = 2 **13.** A(4,4), B(8, 12), and k = ¾ **14.** A(0, 0), B(-3, 2), and k = 5

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

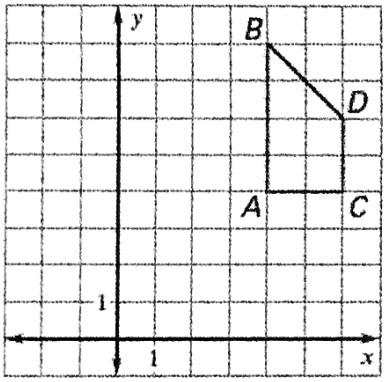
15. k = 2



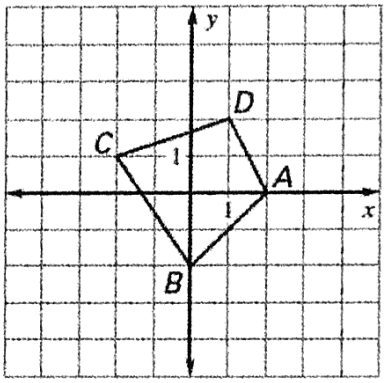
16. k = ¼



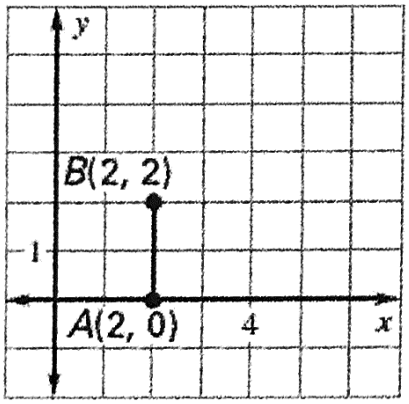
17. k = ½



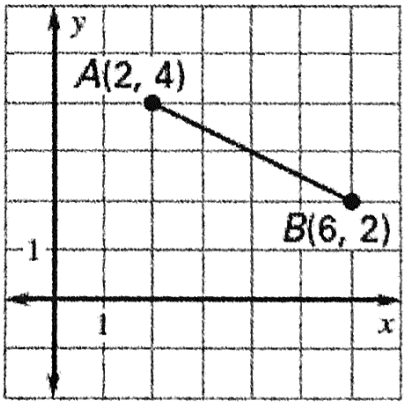
18. k = 1 ½



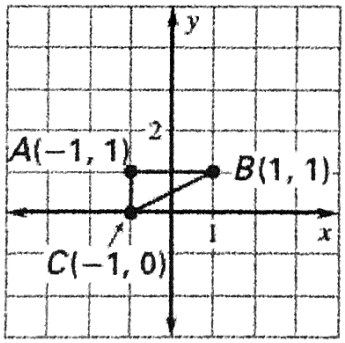
19. k = 2



20. k = ½



21. k = 3



22. k = 1/3