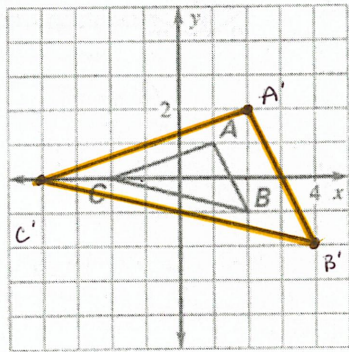
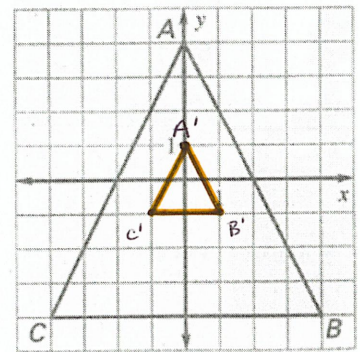


Draw a dilation of the polygon with the given vertices using the given scale factor k .

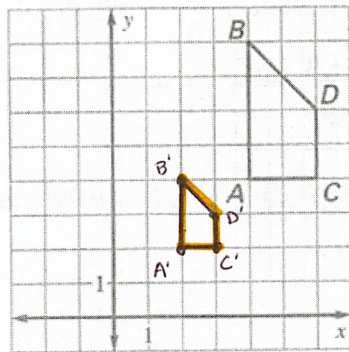
1. $k = 2$



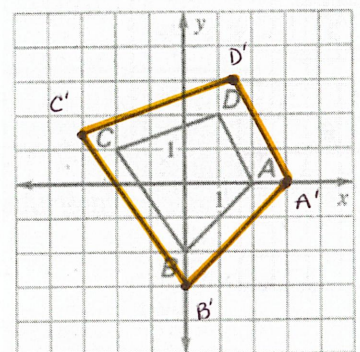
2. $k = \frac{1}{4}$



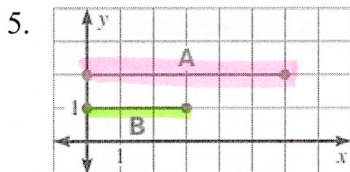
3. $k = \frac{1}{2}$



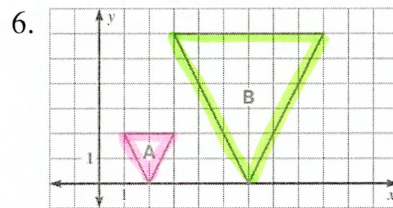
4. $k = 1\frac{1}{2}$



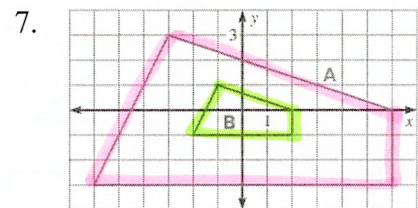
Determine whether the dilation from Figure A to Figure B is a reduction or enlargement. Then find its scale factor.



Reduction; $K = \frac{1}{2}$

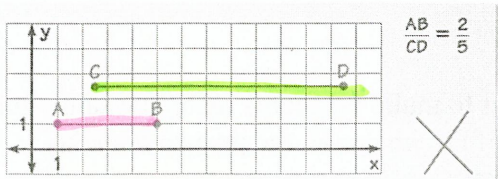


Enlargement; $K = 3$



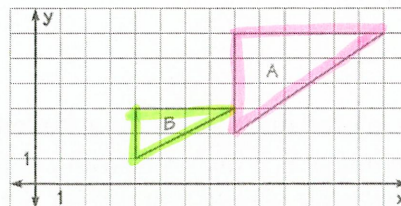
Reduction; $K = \frac{1}{3}$

8. A student found the scale factor of the dilation from \overline{AB} to \overline{CD} to be $\frac{2}{5}$. **Describe and correct** the student's error.



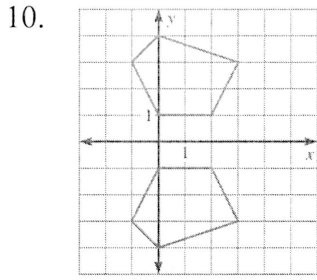
★ order ★

9. A student says that the figure shown represents a dilation. **What is wrong with this statement?**

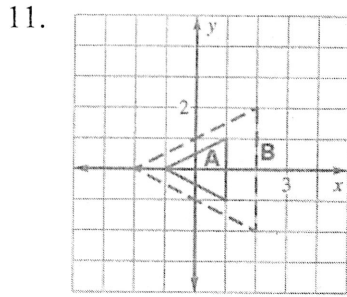


× Scale factor ×

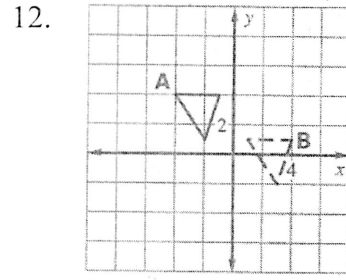
Determine whether the transformation shown is a *translation*, *reflection*, *rotation* or *dilation*.



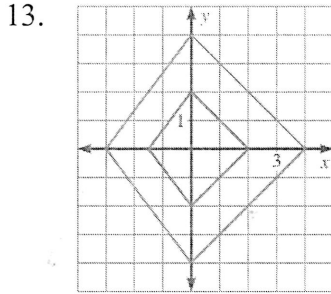
Reflection



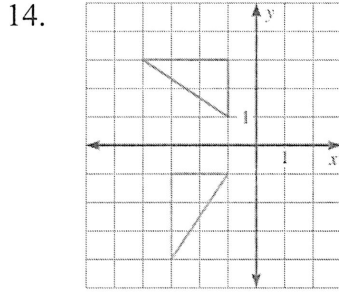
Dilation



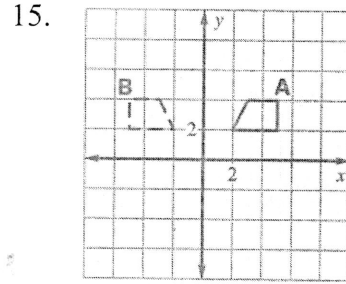
Translation



Dilation

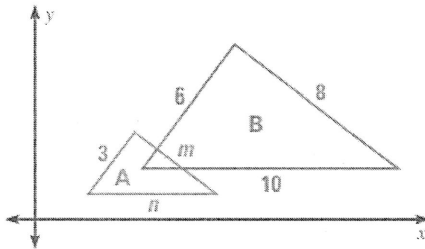


Rotation



Reflection

16. Find the scale factor of the dilation of Figure A to Figure B. Then find the unknown lengths of Figure A.



$K = \frac{2}{1}$; $m = 4$ units ; $n = 5$ units

17. A billboard advertising agency requires each advertisement to be drawn so that it fits in a 12-inch by 6-inch rectangle. The agency uses a scale factor of 24 to enlarge the advertisement to create the billboard. What are the dimensions of a billboard, **in feet**?

24 feet x 12 feet

18. Your pottery is used on a poster for a student art show. You want to make postcards using the same image. On the poster, the image is 8 inches in width and 6 inches in height. If the image on the postcard can be 5 inches wide, what scale should you use for the image on the postcard?

$K = \frac{5}{8}$