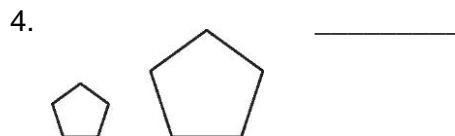
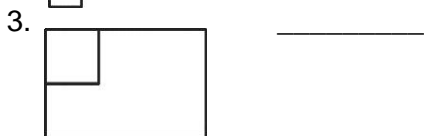


Tell whether each transformation appears to be a dilation.

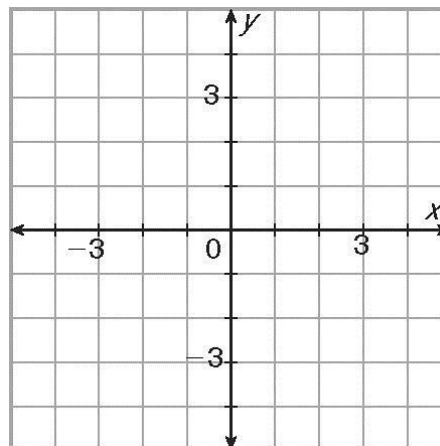
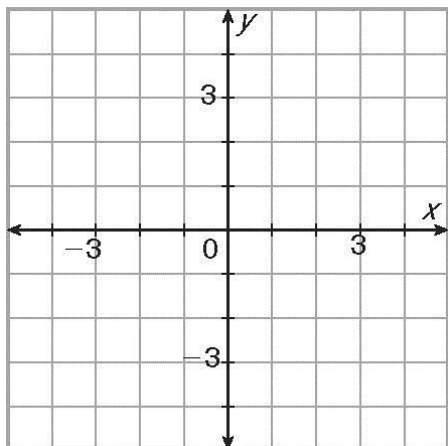


Draw the image of the figure with the given vertices under a dilation with the given scale factor centered at the origin. Use a ruler and label the image points.

5. $A(2, -2), B(2, 3), C(-3, 3), D(-3, -2)$;

6. $P(-4, 4), Q(-3, 1), R(2, 3)$; scale factor: -1

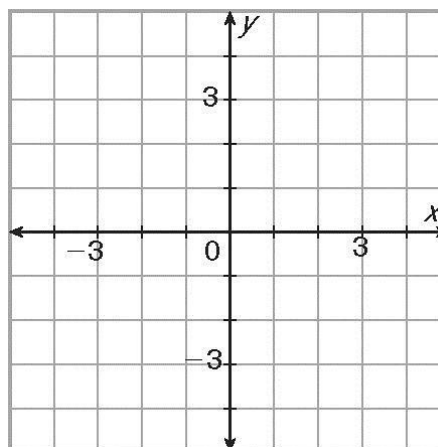
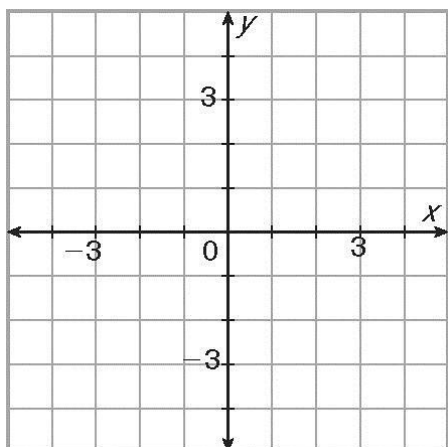
scale factor: $\frac{1}{2}$



7. $J(0, 2), K(-2, 1), L(0, -2), M(2, -1)$;

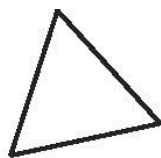
8. $D(0, 0), E(-1, 0), F(-1, -1)$; scale factor: -2

scale factor: 2



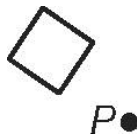
Draw the dilation of each figure under the given scale factor with center of dilation P .
Use a ruler and measure as accurately as possible.

9. scale factor: $\frac{1}{2}$

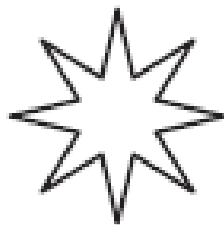


P ●

10. scale factor: -2



11. Draw all lines of symmetry with a ruler.
How many lines of symmetry?



12. Identify the angle of rotational symmetry.

