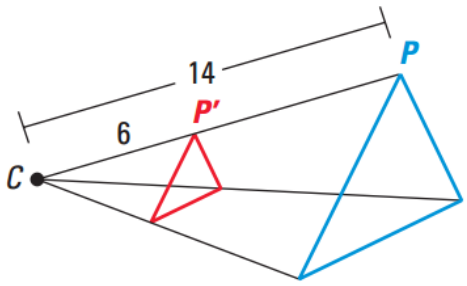
 Name: _____

6.1.D2 – Dilations

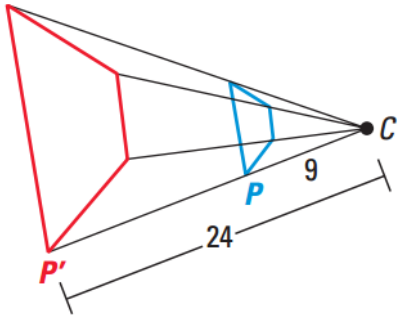
Past due on _____ *Period* _____

Identify the dilation as an enlargement or a reduction and find its scale factor.

1.

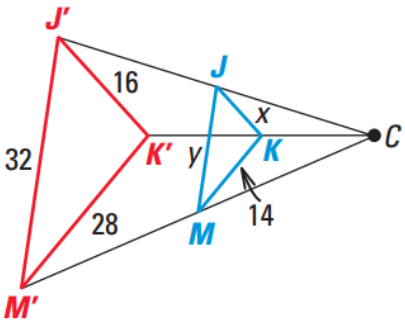


2.

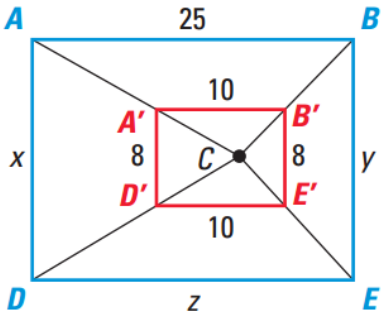


Find the scale factor of the dilation and then set up and solve a proportion to find the value of the variable.

3.



4.



The vertices of a triangle are $F(-6,-1), G(-4,1), \& J(-4,-5)$. Dilate the triangle using the given scale factor and the origin as the center. Find the new coordinates of the image without graphing.

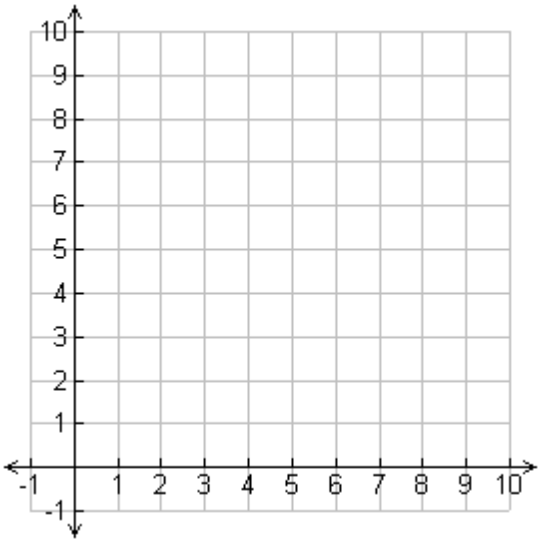
5. Scale factor: 2

6. Scale factor: $\frac{1}{2}$

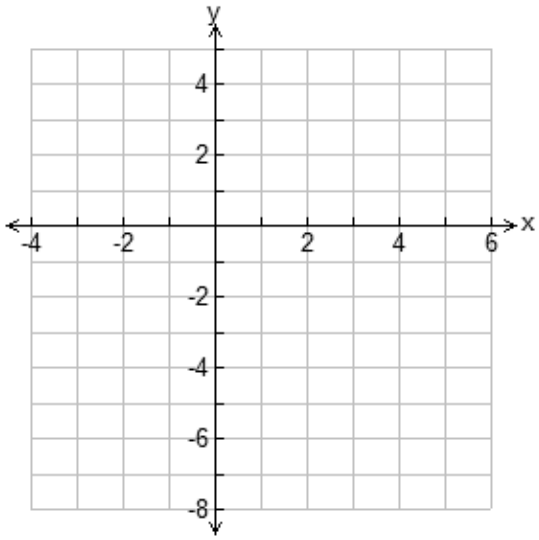
7. Under a dilation, triangle $A(0,0), B(0,4), C(6,0)$ becomes triangle $A'(0,0)$, $B'(0,10)$, $C'(15,0)$. What is the scale factor for this dilation?

Graph the given pre-image, and then find the image of each polygon with the given vertices after a dilation centered at the origin with the given scale factor. Use a straight edge when making your drawings.

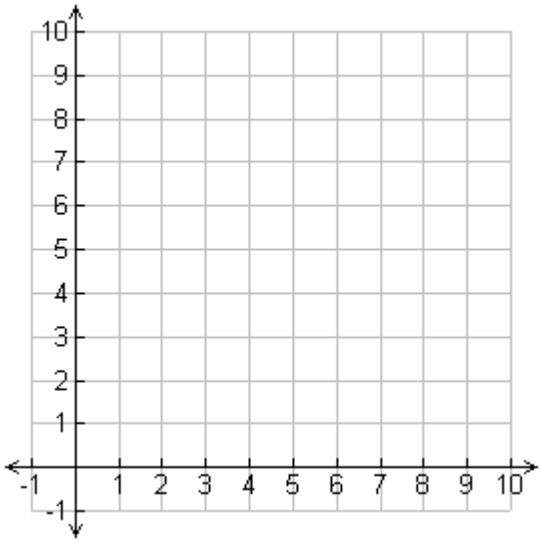
8. $A(3,6), C(6,6), E(9,0)$; scale factor: $\frac{1}{3}$



9. $Q(-2,-3), R(1,2), S(3,1)$; scale factor: 2



10. $M(4,6), N(2,2), P(0,5)$; scale factor: $\frac{3}{2}$



11. $W(-1,-2), V(0,0), T(2,-1)$; scale factor: 4