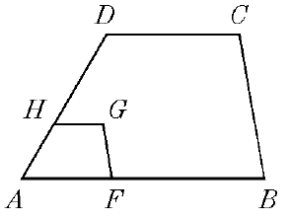
Name: _____

4.REV.1 ~ Lessons 4.1 – 4.3

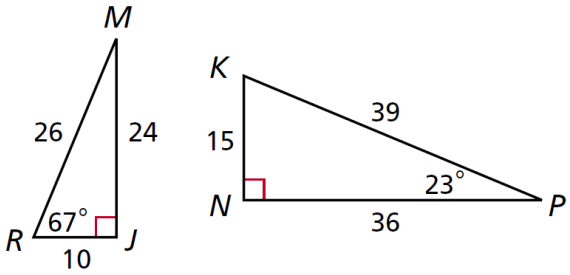
Past due on: _____ Period: _____

1. Given: $ABCD \sim AFGH$

   If $AF = 18, AB = 54, \& HG = 9$, what is DC?

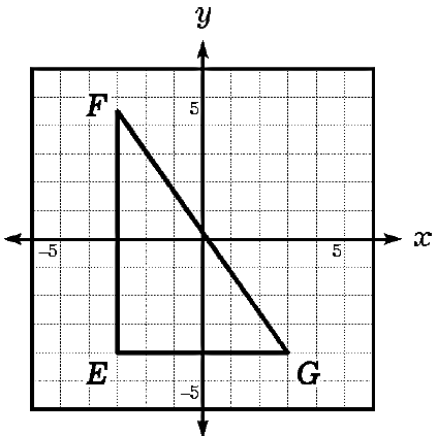


2. Is $\triangle JMR \sim \triangle NPK$? If so, what is the similarity ratio? If not, explain your reasoning.



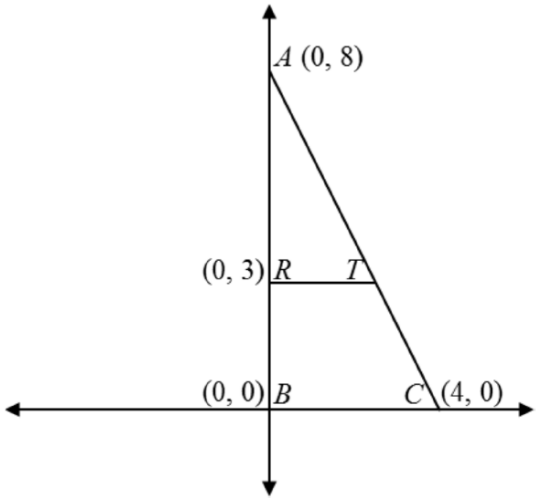
3. Given: $\triangle LMN \sim \triangle EFG$

   If the coordinates of L are $(4, 3)$ and the coordinates of M are $(4, 7.25)$, what are the coordinates of N?



4. Given: $\triangle ABC \sim \triangle ART$

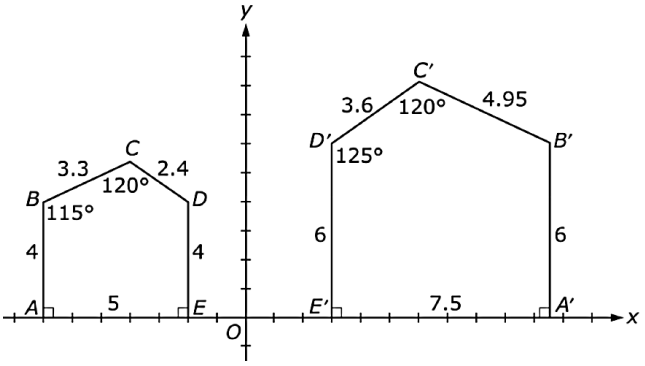
   What is the scale factor if $\triangle ABC$ is the pre-image?



5. The measures of four of the five angles in each pentagon in the coordinate plane are given. The sum of the measures of the interior angles of a pentagon is 540°.

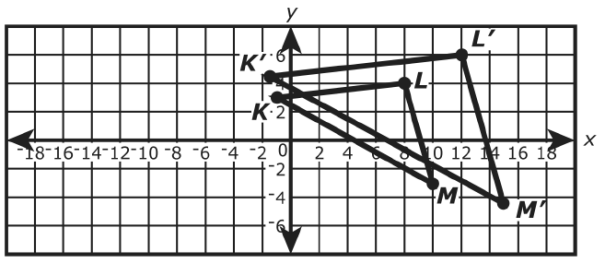
   Are the two pentagons similar? If so, write a valid similarity statement.

   Justify your answer using transformations.



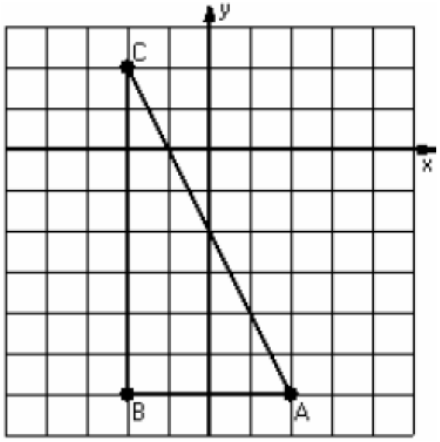
6. Given: $\triangle KLM \sim \triangle K'L'M'$

   Describe the similarity transformation that maps $\triangle KLM$ onto $\triangle K'L'M'$.



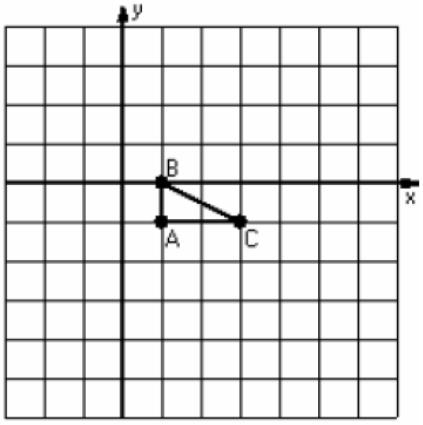
7. Draw and label the dilated image.

   Center: $(-2, -2)$ & $k = \frac{1}{4}$



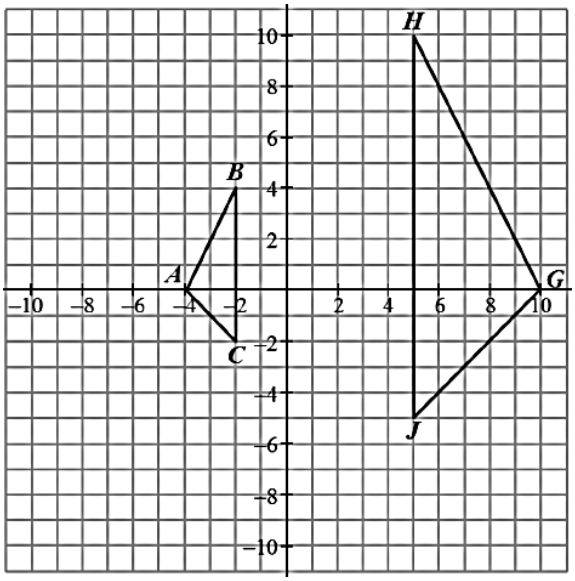
8. Draw and label the dilated image.

   Center: $(2, 1)$ & $k = 3$



9. Given: $\triangle ABC \sim \triangle GHJ$

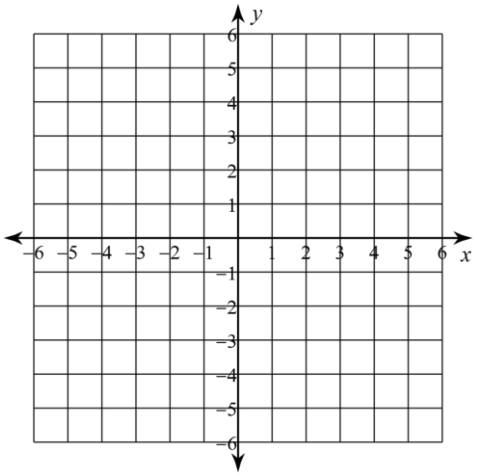
   Describe the similarity transformation that maps $\triangle ABC$ onto $\triangle GHJ$.



10. Given: $\triangle ABC \sim \triangle DEF$

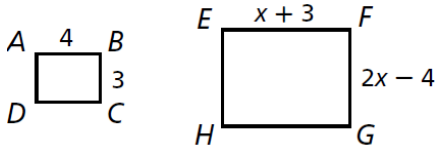
    $\triangle ABC$ has vertices $A(1, -2)$, $B(1, 0.5)$, and $C(2, 1)$ and $\triangle DEF$ has vertices $D(4, -3)$, $E(4, 2)$, and $F(6, 3)$.

    Graph the triangles and describe the similarity transformation that maps $\triangle ABC$ onto $\triangle GHJ$.



11. Given: $ABCD \sim EFGH$

    Find x.



12. Given: $\triangle MNP \sim \triangle XYZ$

    Find x.