

6.REV.2 ~ Lessons 6.1 - 6.3

A triangle has the given vertices. What are the vertices of the image after a dilation with the given scale factor k using the origin as the center of dilation?

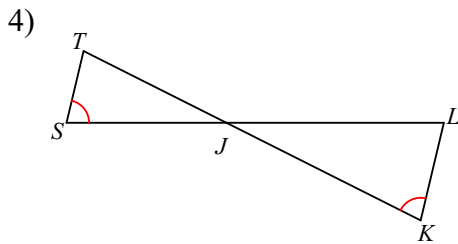
1) $J(-5, -2), B(-2, -1), A(-2, -4), k = \frac{1}{2}$

2) $L(-1, 1), A(2, 2), S(-1, -2), k = \frac{3}{2}$

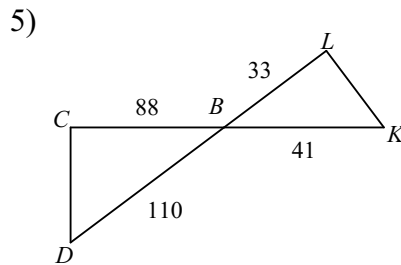
Given the coordinates of the pre-image and image, determine the scale factor of the dilation. Express the scale factor as a fraction in simplest form.

3) $J(-2, 2), T(0, 2), X(2, 3)$ and $J'(-3, 3), T'(0, 3), X'(3, 4.5)$

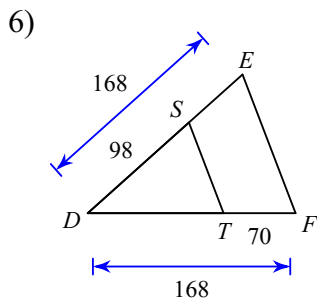
Determine whether the triangles are similar and explain your reasoning. If the triangles are similar, identify the similarity theorem - AA, SSS, or SAS - and complete the similarity statement.



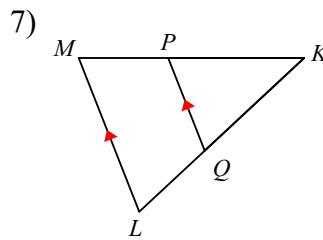
$\triangle JKL \sim$ _____



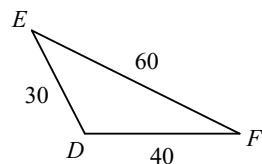
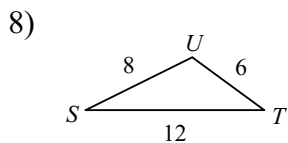
$\triangle BCD \sim$ _____



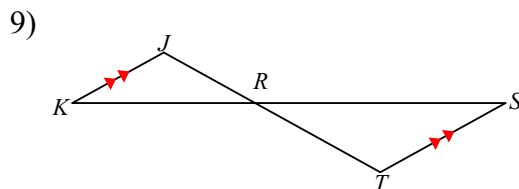
$\triangle DEF \sim$ _____



$\triangle KLM \sim$ _____



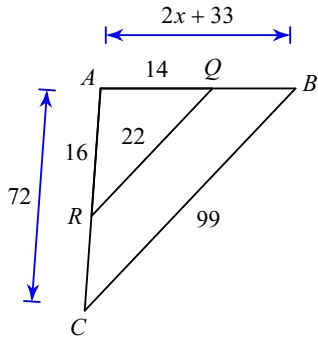
$\triangle DEF \sim$ _____



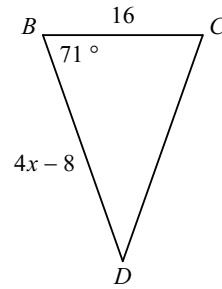
$\triangle RST \sim$ _____

The triangles shown are similar. Identify the similarity theorem: AA, SSS, or SAS. Set up and solve a proportion to find the value of x .

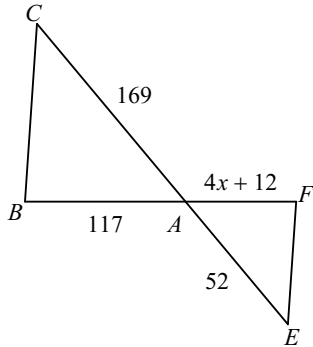
10)



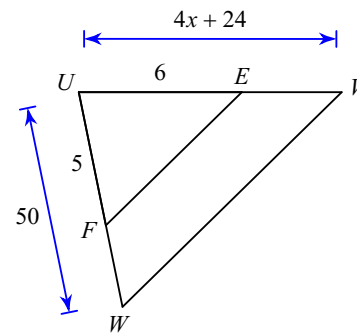
11)



12)

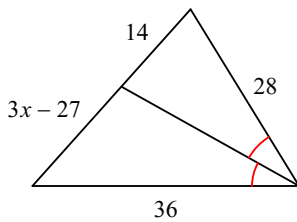


13)

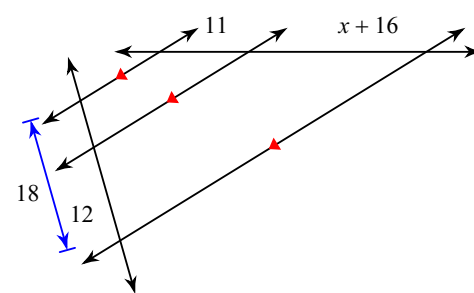


Use one of the Theorems About Proportionality (from Lesson 6.3), to set up and solve a proportion to find the value of x .

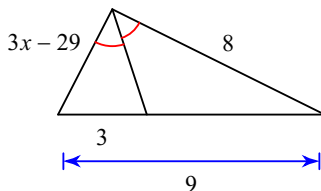
14)



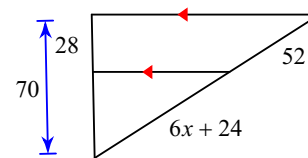
15)



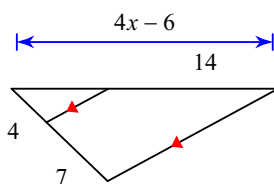
16)



17)



18)



19)

