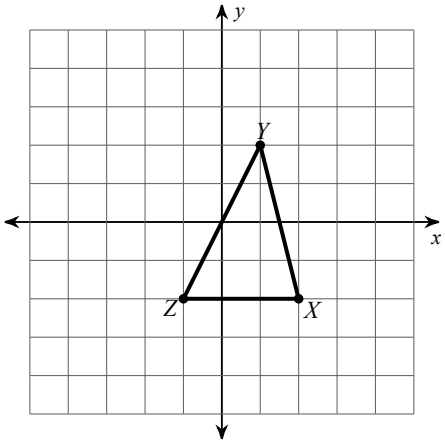
Unit 6 Similarity Review

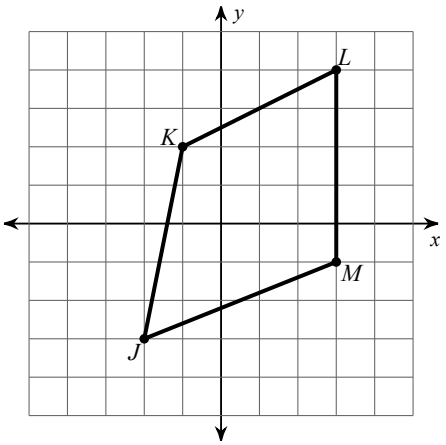
Date_____ Period____

Graph the image of the figure using the transformation given.

1) dilation of 2.5 about the origin

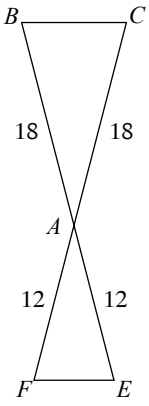


2) dilation of $\frac{1}{4}$ about the origin

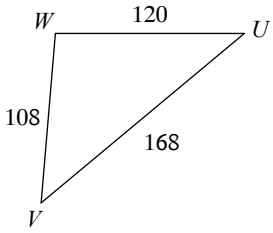


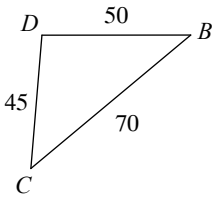
Find the scale factor from the first triangle listed to the second. Then state if it is a reduction or an enlargement.

3) $\triangle ABC \sim \triangle AEF$



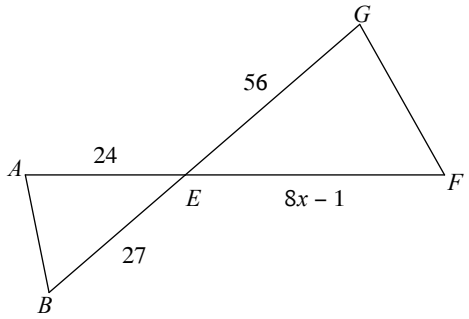
4) $\triangle UVW \sim \triangle BCD$



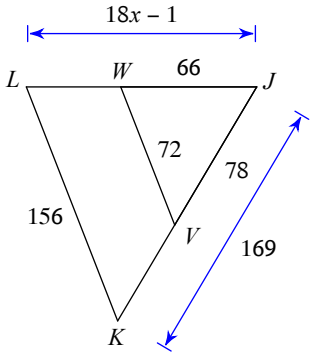


Solve for *x*. The triangles in each pair are similar.

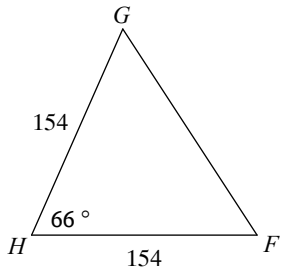
5) $\triangle EFG \sim \triangle EBA$

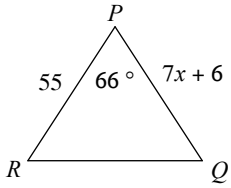


6)

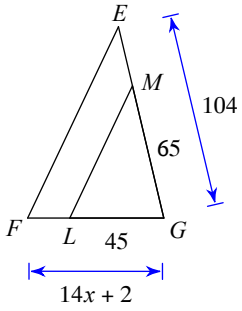


7) $\triangle HGF \sim \triangle PQR$

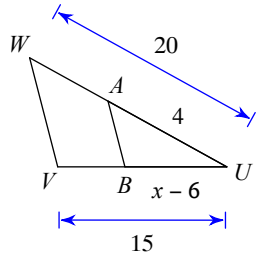




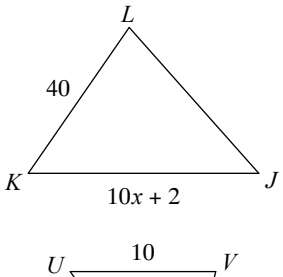
8)

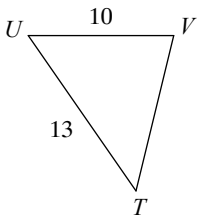


9)



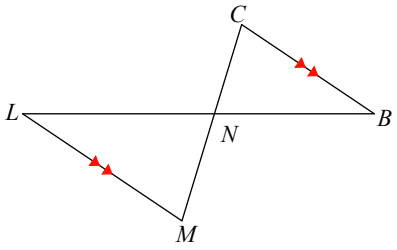
10) $\triangle JKL \sim \triangle TUV$





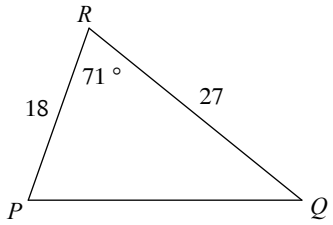
State if the triangles in each pair are similar. If so, state how you know they are similar and complete the similarity statement.

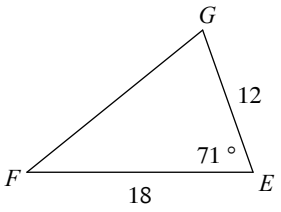
11)



$\triangle NML \sim$ _____

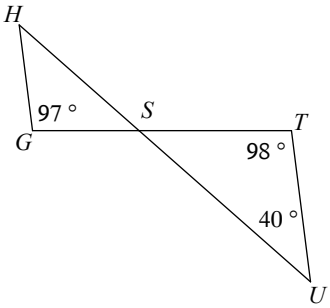
12)





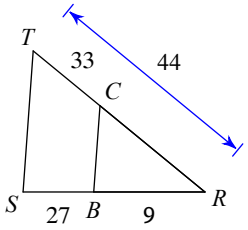
$\triangle RQP \sim$ _____

13)



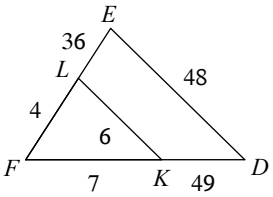
$\triangle STU \sim$ _____

14)



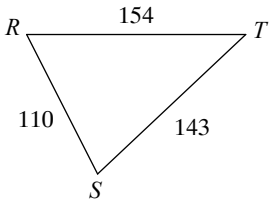
$\triangle RST \sim$ _____

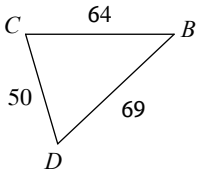
15)



$\triangle FED \sim$ _____

16)





$\triangle RST \sim$ _____

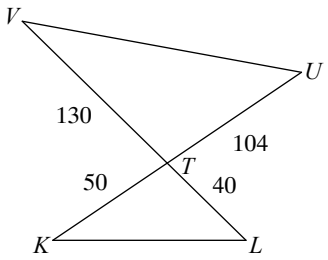
Describe the following properties:

17) Reflexive

18) Substitution

Write a two-column proof to determine if the two triangles are similar.

19)

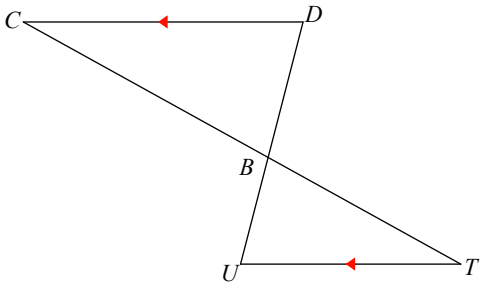


$\triangle TUV \sim$ _____

20) Use the two-column proof to write a paragraph proof.

Write a two-column proof to determine if the two triangles are similar.

21)



$\triangle BCD \sim$ _____

22) Use the two-column proof to write a paragraph proof.

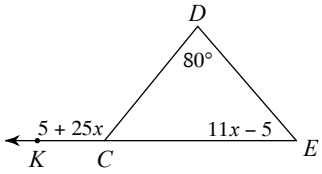
State if the three numbers can be the measures of the sides of a triangle.

23) 6, 7, 7

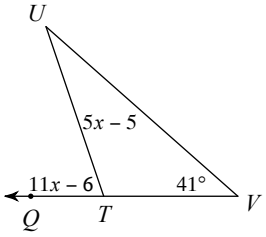
24) 23, 11, 12

Find the measure of the angle indicated.

25) Find $m\angle KCD$.

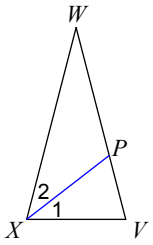


26) Find $m\angle QTU$.

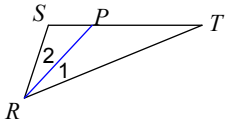


Each figure shows a triangle with one of its angle bisectors.

27) Find $m\angle 1$ if $m\angle 2 = 4x + 6$ and $m\angle 1 = 5x - 2$.

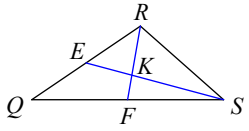


28) $m\angle 2 = 7x - 4$ and $m\angle TRS = 12x$. Find $m\angle TRS$.

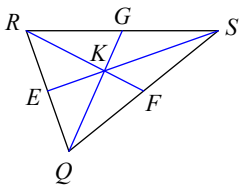


Each figure shows a triangle with one or more of its medians.

29) Find KE if $SK = 2x - 9$ and $SE = \frac{3x}{2}$

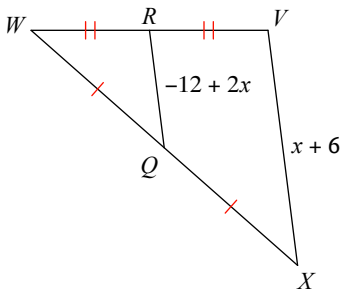


30) Find RF if $RK = -2 + 6x$ and $KF = x + 3$

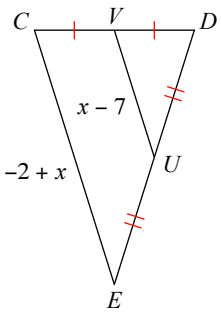


Find the missing length indicated.

31) Find XV

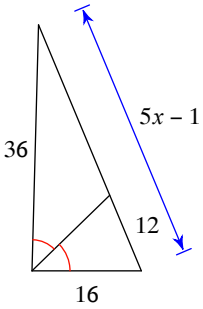


32) Find VU

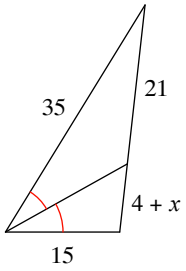


Solve for x.

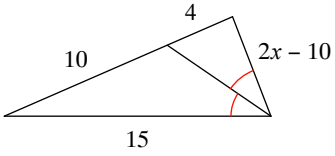
33)



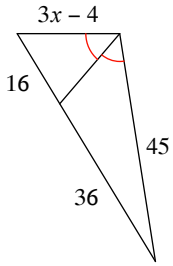
34)



35)

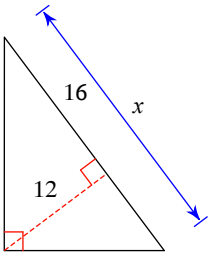


36)

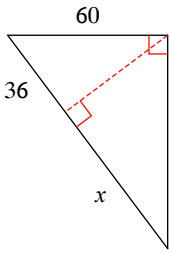


Find the missing length indicated. Leave your answer in simplest radical form.

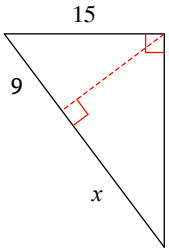
37)



38)



39)



40)