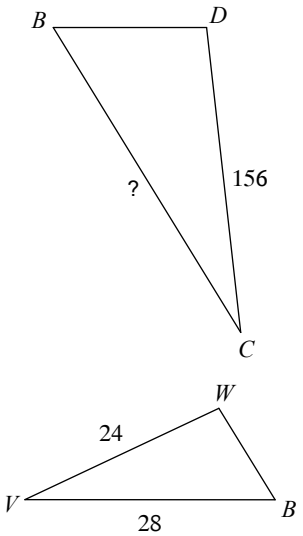
Secondary Math 2 Name_____

10.2 Similarity

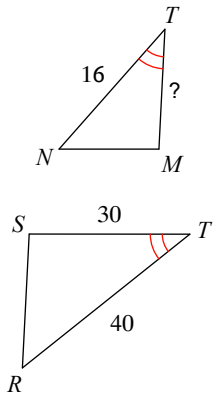
Date_____ Period____

Find the missing length. The triangles in each pair are similar.

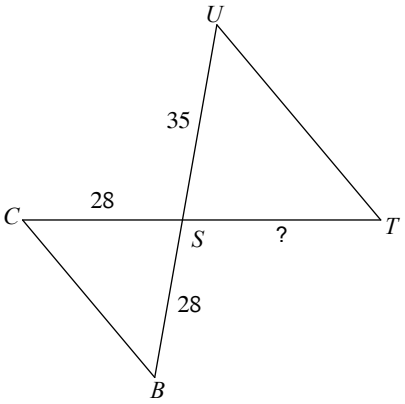
1) $\triangle BCD \sim \triangle BVW$



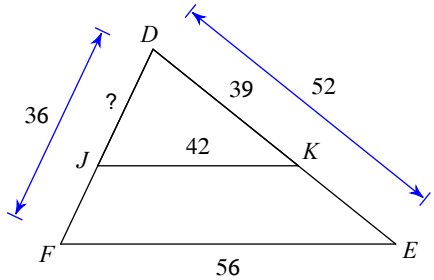
2) $\triangle TSR \sim \triangle TMN$



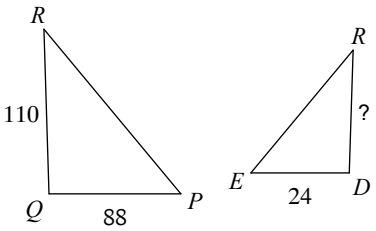
3) $\triangle STU \sim \triangle SBC$



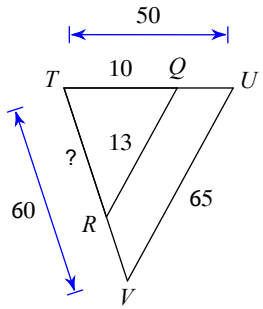
4)



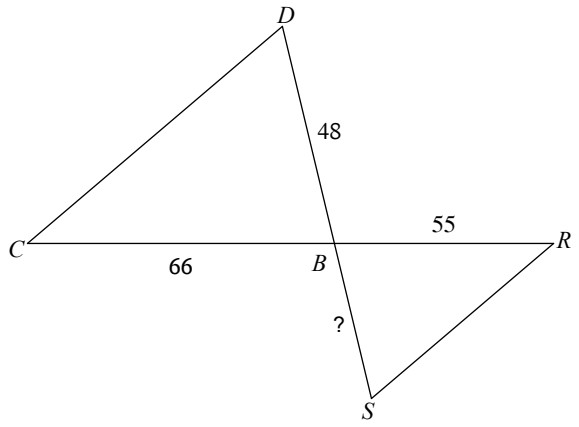
5) $\triangle RQP \sim \triangle RDE$



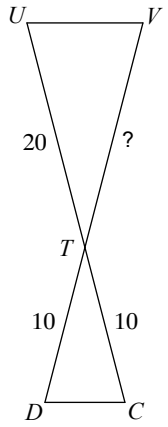
6)



7) $\triangle BCD \sim \triangle BRS$

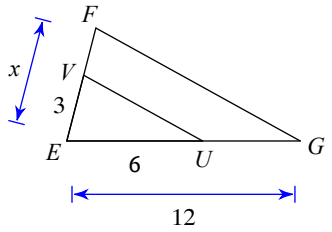


8) $\triangle TUV \sim \triangle TCD$

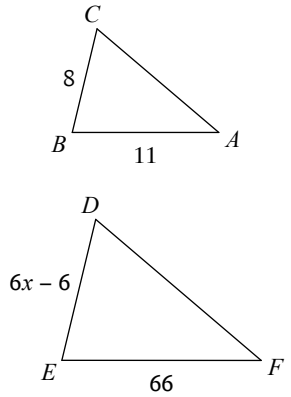


Solve for *x*. The triangles in each pair are similar.

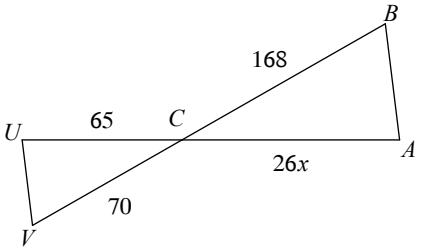
9)



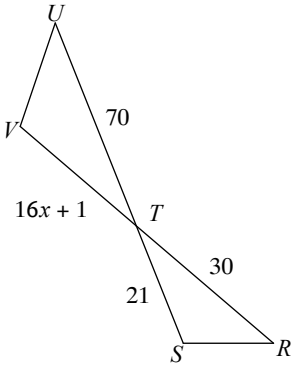
10) $\triangle FED \sim \triangle ABC$



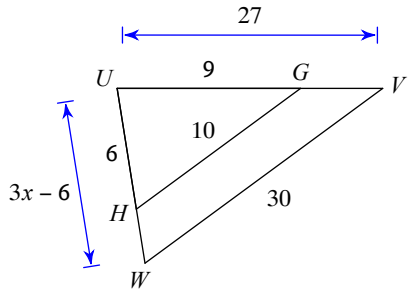
11) $\triangle CBA \sim \triangle CVU$



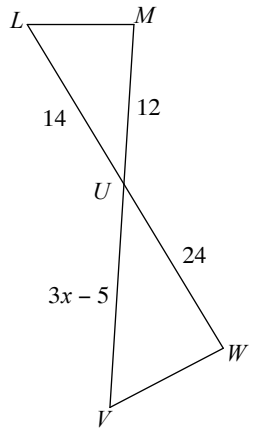
12) $\triangle TUV \sim \triangle TRS$



13)

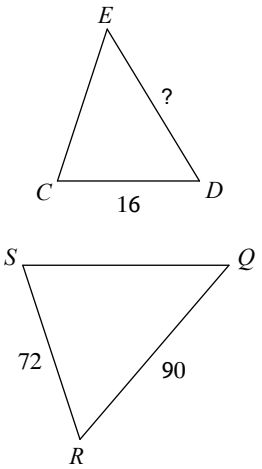


14) $\triangle UVW \sim \triangle ULM$

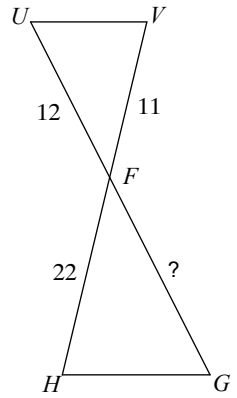


Given that the two triangles are similar, find the scale factor from the triangle listed first to the triangle listed second. State if it is an enlargement or a reduction.

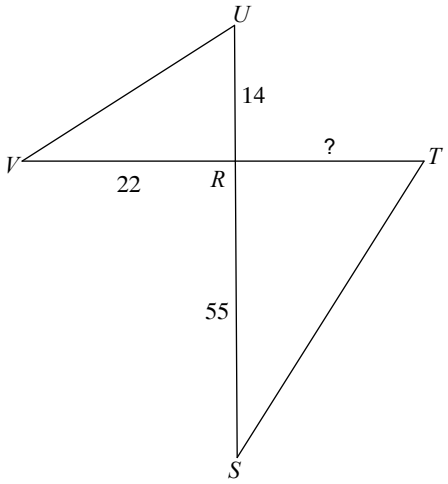
15) $\triangle QRS \sim \triangle EDC$



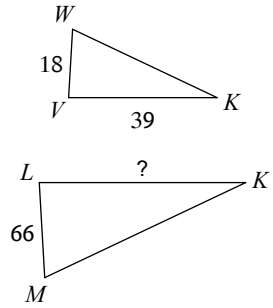
16) $\triangle FGH \sim \triangle FUV$



17) $\triangle RST \sim \triangle RVU$



18) $\triangle KLM \sim \triangle KVW$



Dilate the coordinates using the scale factor. State if it is an enlargement or a reduction.

19) k=4, (1,3), (5, -2), (-4,8)

20) k=0.5, (-1,-5), (1, 2), (-6,-4)

21) k=$\frac{3}{2}$, (0,-6), (4, -4), (2,1)

22) k=2, (0,8), (-3, 14), (12,-9)