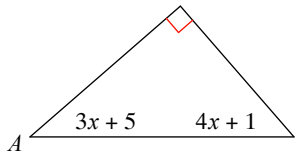
Secondary Math 2 Name_____

Unit 10 Similar Triangles Review

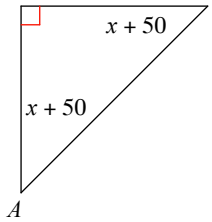
Date_____ Period____

Find the measure of angle A.

1)

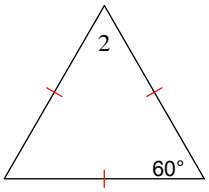


2)

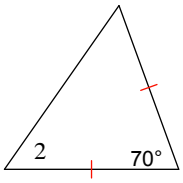


Find the value of *x*.

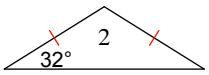
3) $m\angle 2 = x + 70$



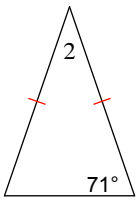
4) $m\angle 2 = x + 65$



5) $m\angle 2 = 17x - 3$

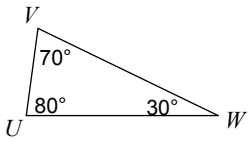


6) $m\angle 2 = x + 47$



Order the sides of each triangle from shortest to longest.

7)



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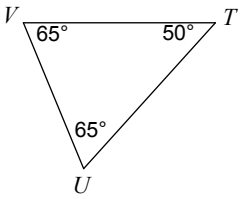
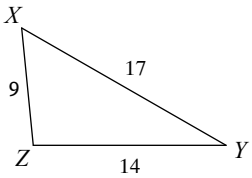


Order the angles in each triangle from smallest to largest.

9)



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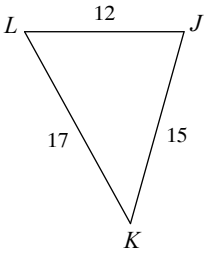


State if the three numbers can be the measures of the sides of a triangle.

11) 6, 3, 11

12) 11, 3, 12

13) 14, 9, 6

14) 9, 15, 9

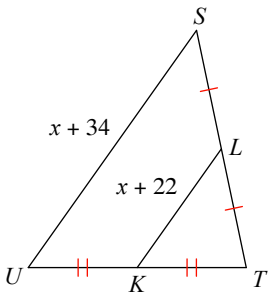
Dilate each figure using the stated scale factor.

15) A(7,3) B(-2,5) C(3,-4), k=3

16) J(0,4) K(-8,3) L(-4,6), k=0.5

Solve for *x*.

17)



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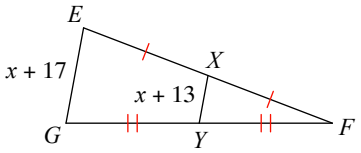

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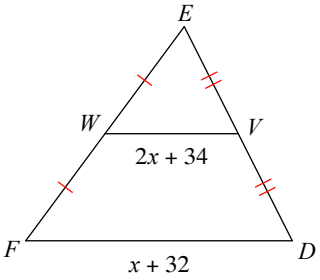

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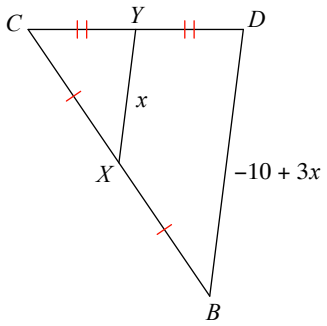
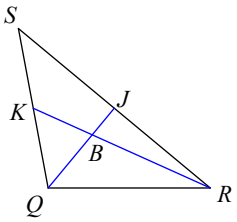
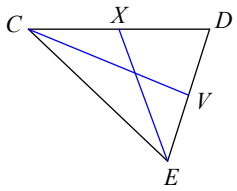


Each figure shows a triangle with one or more of its medians.

21) Find x if $RS = 3x - 1$ and $JS = 2 + x$

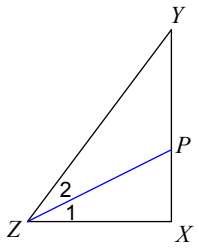


22) Find x if $XC = \frac{x-1}{2}$ and $XD = x - \frac{5}{2}$

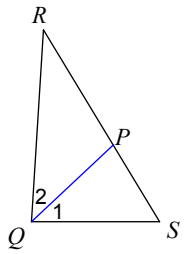


Each figure shows a triangle with one of its angle bisectors.

23) $m\angle 2 = 6x + 2$ and $m\angle 1 = 7x - 2$.
Find x.

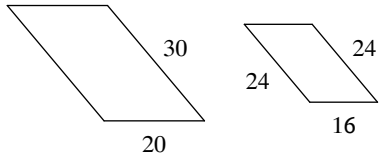


24) $m\angle 2 = 8x - 5$ and $m\angle 1 = 7 + 6x$.
Find x.



The polygons in each pair are similar. Find the scale factor of the first figure to the second figure. State if it is an enlargement or a reduction.

25)



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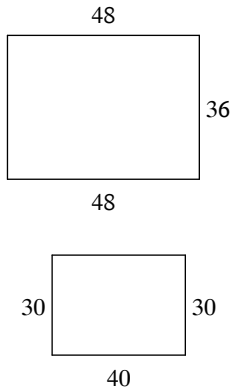

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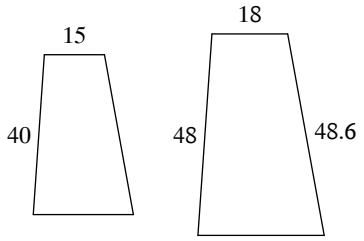

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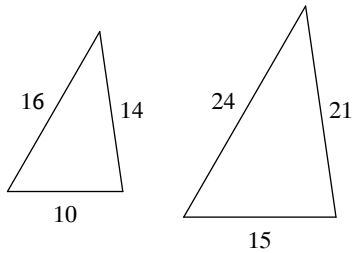
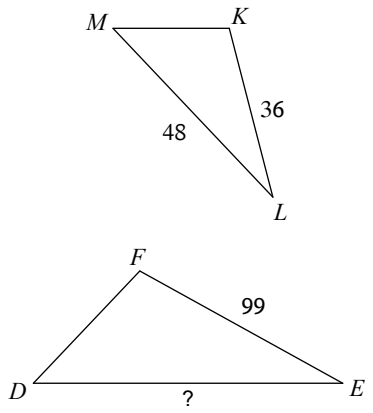


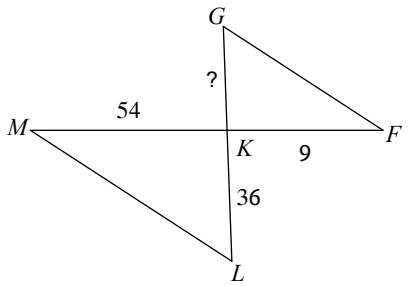
29) You are 163cm tall. You cast a shadow that is 100cm long. How tall is the building next to you that casts a 640cm shadow?

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

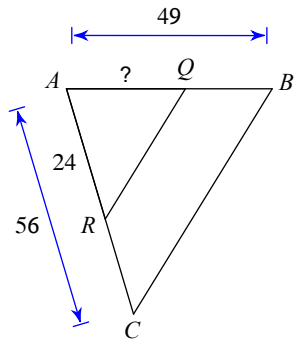
30) $\triangle FED \sim \triangle KLM$



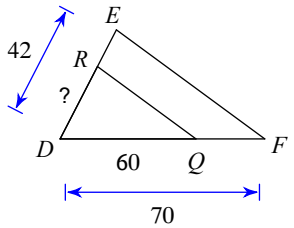
31) $\triangle KLM \sim \triangle KGF$



32)

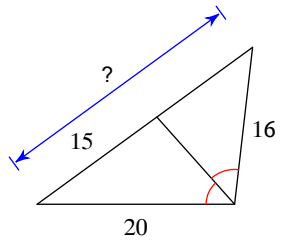


33)

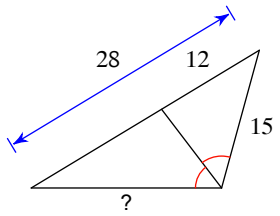


Find the missing length indicated.

34)



35)



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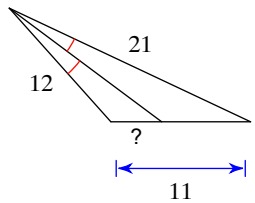
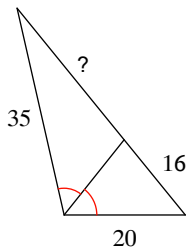
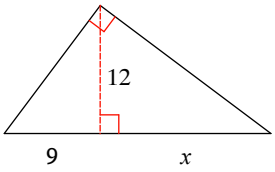


37)

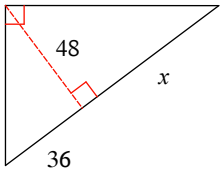


Find the missing length indicated. Leave your answer in simplest radical form.

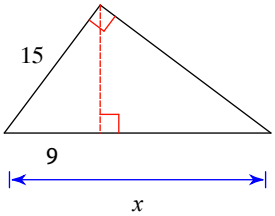
38)



39)



40)



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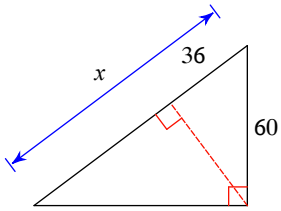
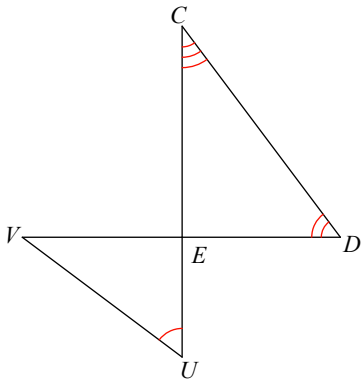


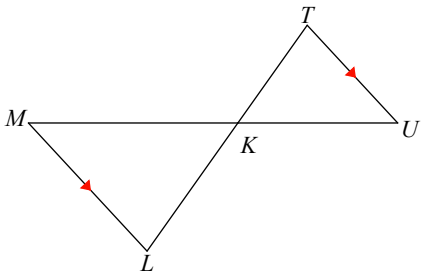
State if the triangles in each pair are similar. If so, state how you know they are similar and complete the similarity statement.

42)



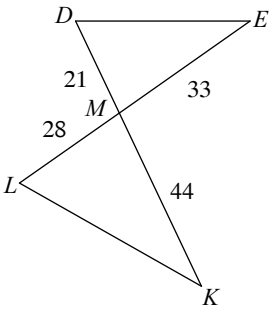
$\triangle EDC \sim$ _____

43)



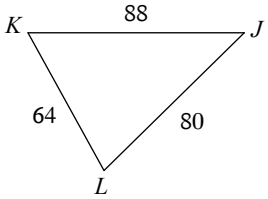
$\triangle KLM \sim$ _____

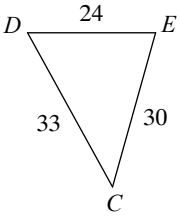
44)



$\triangle MLK \sim$ _____

45)





$\triangle JKL \sim$ _____