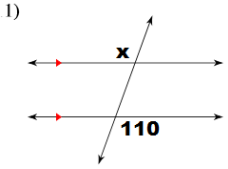
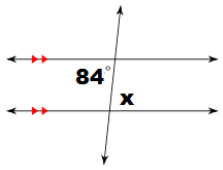
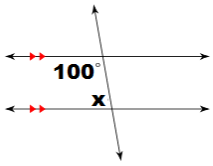
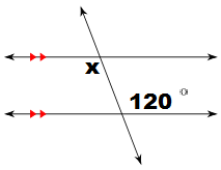
Name_____ 2:3 Date _____

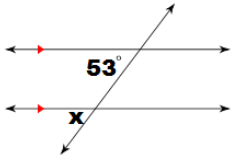
A. Find the value of the missing angle and describe the relationship between the two angle

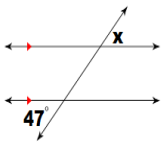
1) 

2) 

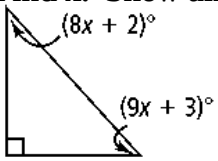
3) 

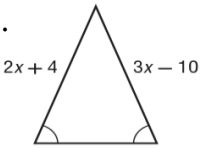
4) 

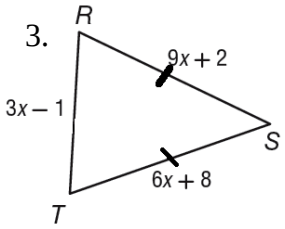
7) 

6) 

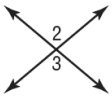
B. Find x. Show all your work

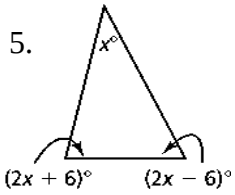
1.. 

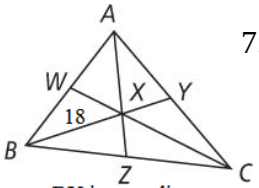
2. 

3. 

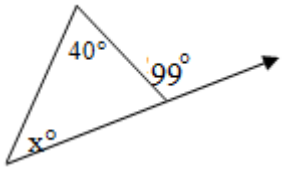
4. $m\angle 2 = 4x - 26$, $m\angle 3 = 3x + 4$

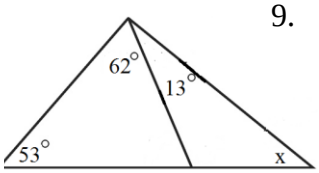


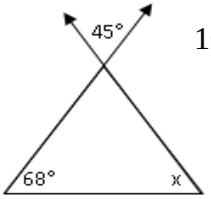
5. 

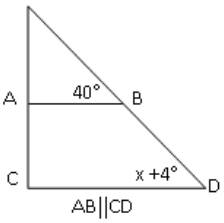
6. 

BY is a median
Find the length of XY

7. 

8. 

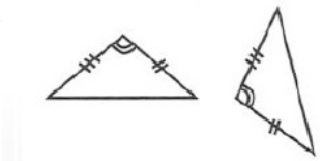
9. 

10. 

Congruent Triangles-are the **same size and shape**. All corresponding angles and sides are all congruent.
If you know corresponding **SSS, SAS, ASA, or AAS** of two triangles are congruent, the triangles are congruent.

If you have two right triangles, you can prove they are congruent by showing hypotenuses and 1 pair of legs are congruent. **HL.**

C. – Name the postulate can you use to prove that the 2 triangles are congruent, if possible

1 
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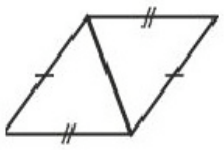
2. 
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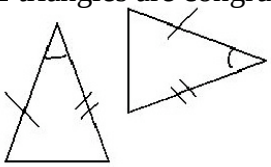
3. 
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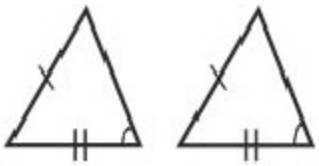
4. 
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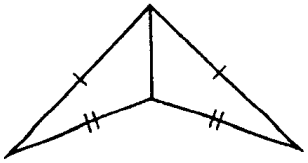
5. 
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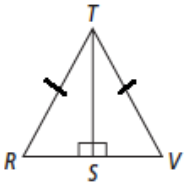
6. 

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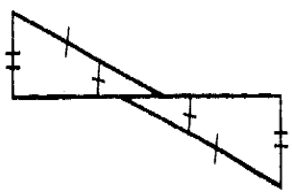
7. 
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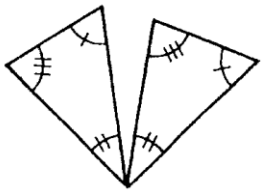
8. 
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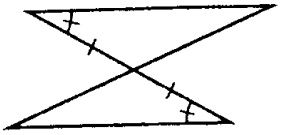
9. 
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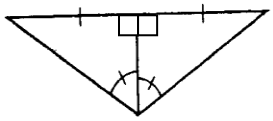
10. 
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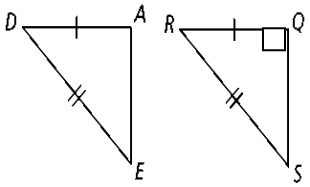
11. 

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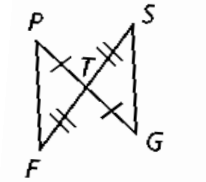
12. 

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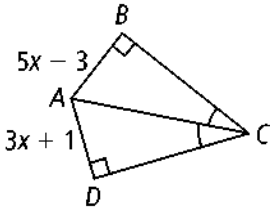
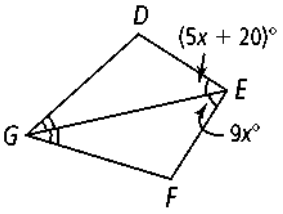
Angle Bisector-a line, segment or ray that divides an angle into two equal parts.
If a point is on the bisector of an angle, then it is equidistant from the sides of the angle.

D. Find the indicated variables and measures. Show your work

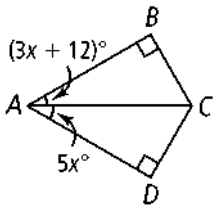
1. *x, BA, DA*



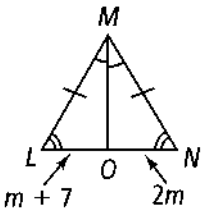
2. *x, m∠DEF*



3. *x, m∠DAB*



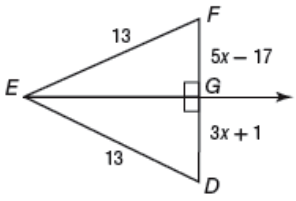
4. m, LO, NO



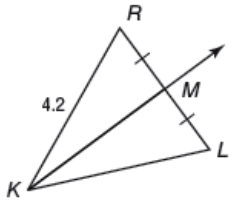
Perpendicular Bisector - a line, segment or ray that intersects at the midpoint of one side and creates a 90° angle. If the bisector also intersects the opposite angle, the triangle is isosceles

E. Find the length of the side indicated. Show your work.

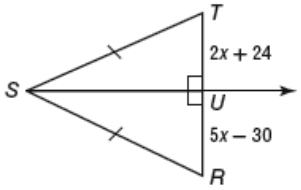
1. *FG*



2. *KL*



3. *TU*



4. *TP*

F. **Throwback Solve each for x and y, show all work.**

1. 3(x + 4yi) = (2 + 8i) + (19 + 16i)
2. 4(5x + 2yi) = 60 − 30i
3. 3(x + 2yi) = (12 −20i) − (6 + 4i)

G. **throwback Solve for x, show all your work.**

1. $-4\sqrt{x+5} = -48$
2. $7\sqrt{3x+14} + 2 = -19$
3. $\sqrt{10x^2 - 9} = 3x$
4. $\sqrt{2x^2 - 64} = x$