Name: _____

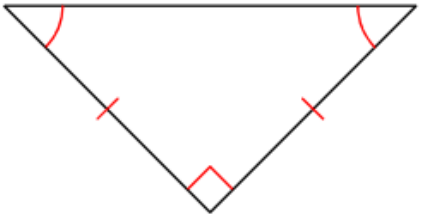
Date: _____ **Period:** _____

Unit 4 Congruent Triangles HOMEFUN Days 1-4

Day 1 – Triangle Basics

For 1 – 6, use the given information to classify the triangle (Must have a side and angle word).

1.



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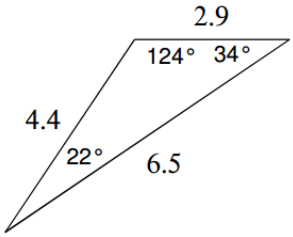
2.



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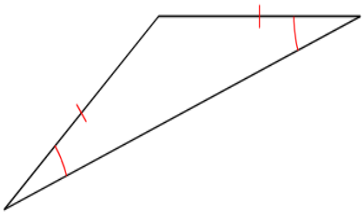
3.



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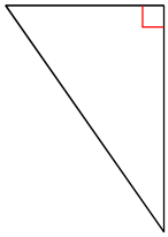
4.



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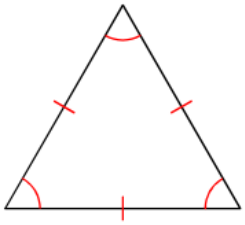
5.



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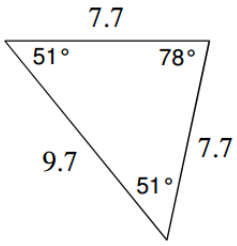
6.



_____

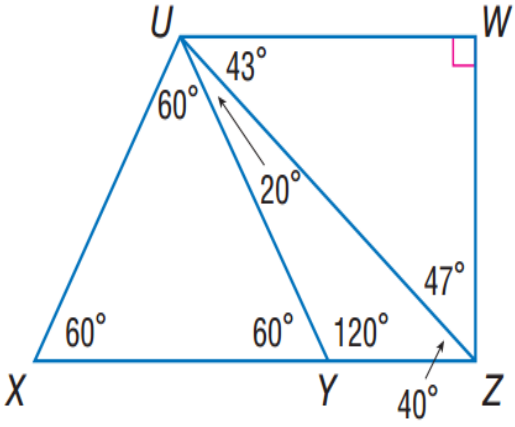
Classify each triangle as acute, equiangular, obtuse, or right.

7. $\Delta UYZ =$ _____

8. $\Delta UXZ =$ _____

9. $\Delta UWZ =$ _____

10. $\Delta UXY =$ _____



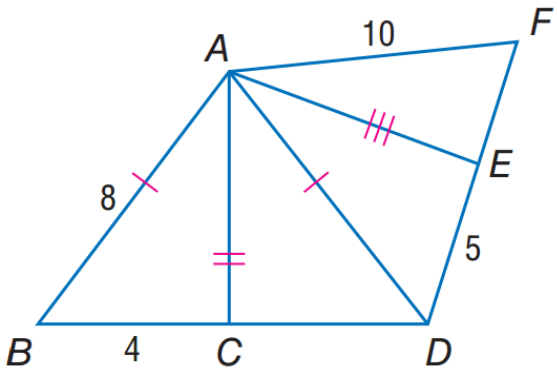
If point C is the midpoint of $\overline{BD}$, and point E is the midpoint of $\overline{DF}$, classify each triangle as equilateral, isosceles, or scalene.

11. $\Delta ABC =$ _____

12. $\Delta ADF =$ _____

13. $\Delta AED =$ _____

14. $\Delta AEF =$ _____



Draw the following Triangles if possible.

15. Obtuse Scalene

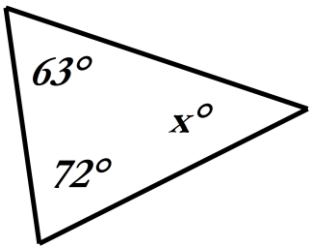
16. Right Equilateral

17. Acute Equilateral

Day 2 – Triangles and their Angles

For 1 – 8, solve for variable.

1.



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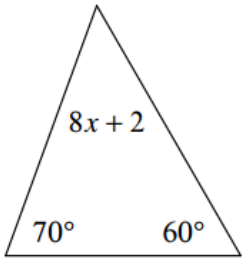
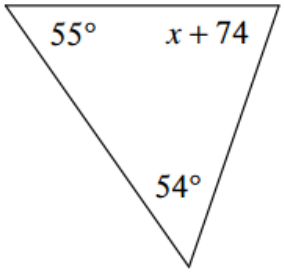
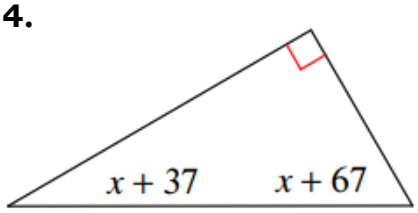


3.



4.



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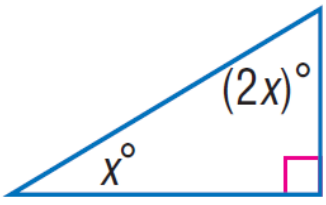
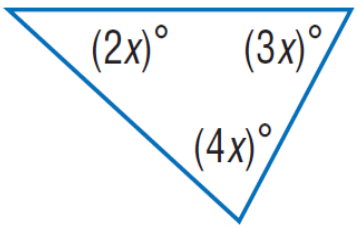


6.



7. Find m<B given. DRAW THE TRIANGLE

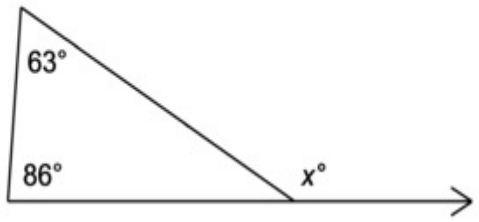
$m\angle A = (3x+2)°$

$m\angle B = (5x-1)°$

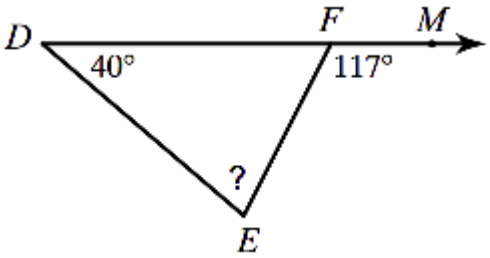
$m\angle C = (6x+11)°$

Day 3- Triangles and their Angles- External Angle Theorem

1.

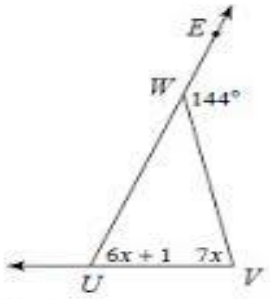


2.



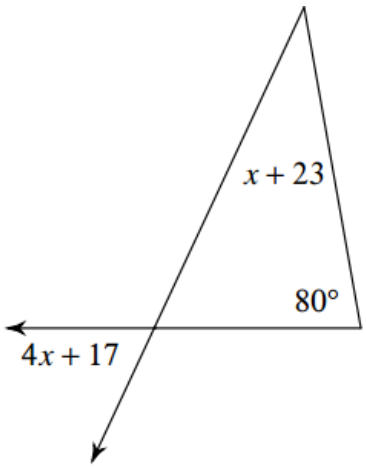
3.

Find $m\angle V$.



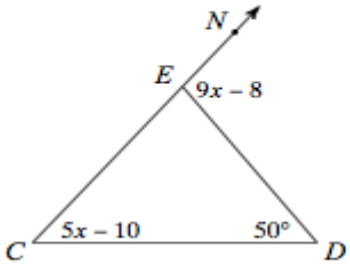
A) 69° B) 92°
C) 77° D) 67°

4.



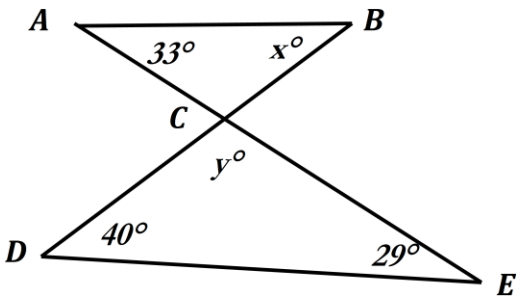
5.

Find $m\angle NED$.



Solve for variable(s) in the following.

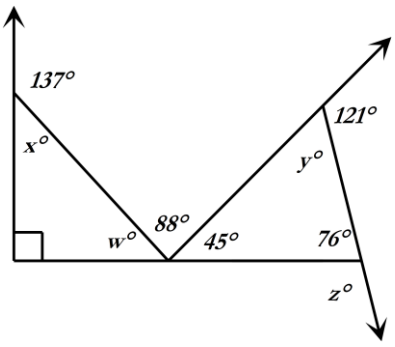
6.



$x =$ _____

$y =$ _____

7.



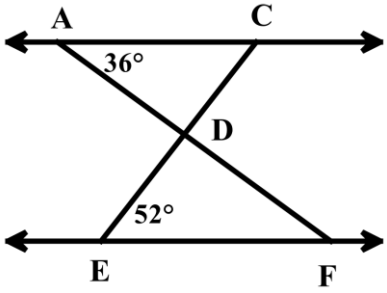
$w =$ _____

$x =$ _____

$y =$ _____

$z =$ _____

8. **Given:** $\overline{AC}||\overline{EF}$

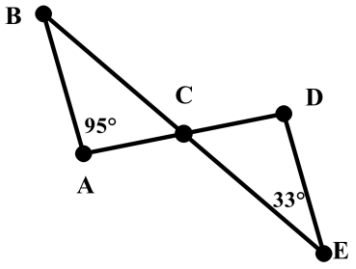


$m\angle ACD =$ _____

$m\angle ADC =$ _____

$m\angle AFE =$ _____

9. **Given:** $\overline{AB}||\overline{DE}$



$m\angle BCA =$ _____

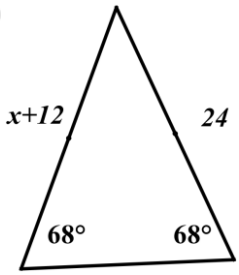
$m\angle DCE =$ _____

$m\angle BAC =$ _____

Day 4 – Isosceles and Equilateral Triangles

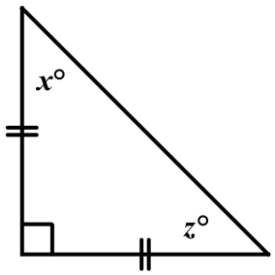
Solve the following.

1)



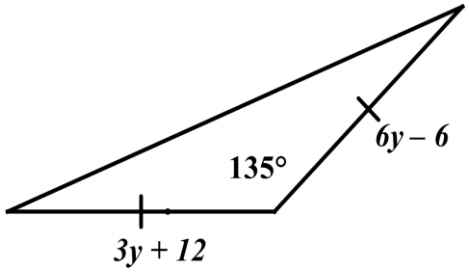
$x =$ _____

2)



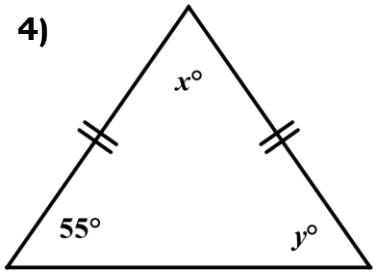
$x =$ _____ $z =$ _____

3)



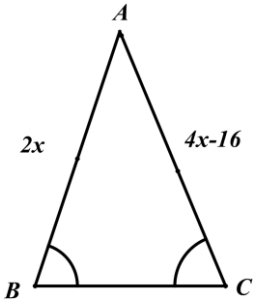
$y =$ _____

4)



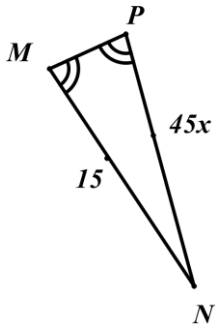
$x =$ _____ $y =$ _____

5)



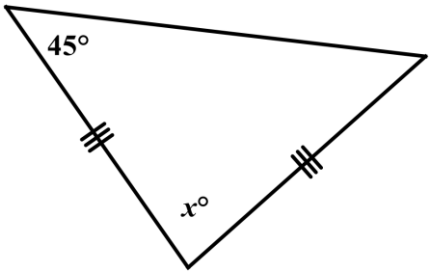
$AC =$ _____

6)



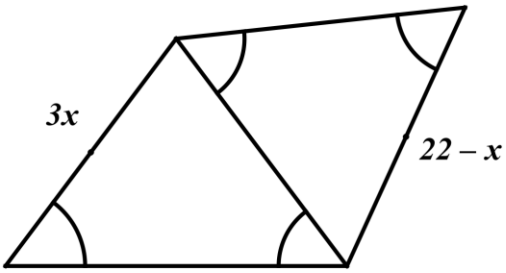
$NP =$ _____

7)



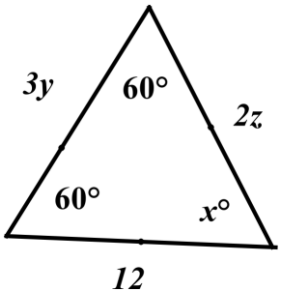
$x =$ _____

8)

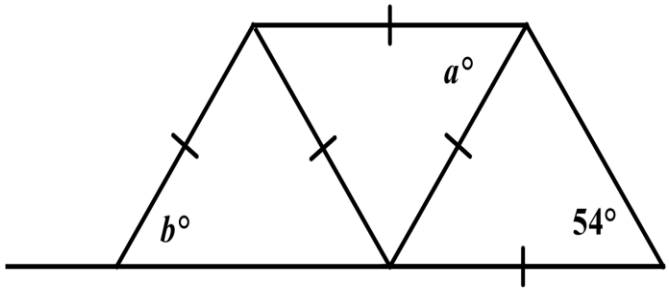


$x =$ _____

9)

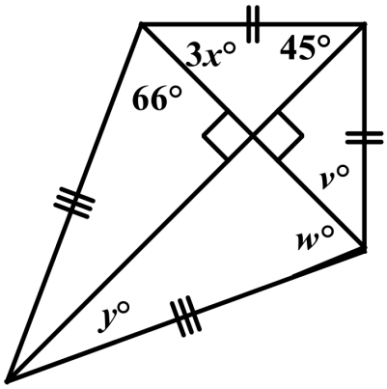


10)



$x =$ _____ $y =$ _____ $z =$ _____ $a =$ _____ $b =$ _____

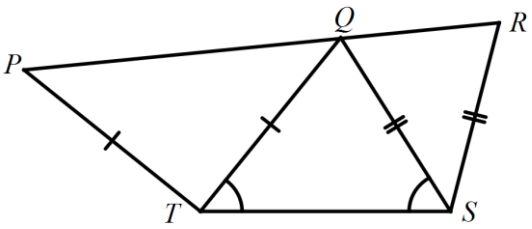
11)



$v =$ _____ $w =$ _____

$x =$ _____ $y =$ _____

12. Which conclusion can be drawn from the given facts in the diagram?



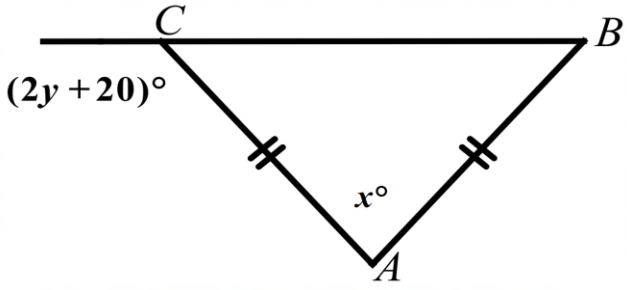
A. $\overline{TQ}$ bisects $\angle PTS$

B. $\angle TQS \cong \angle RQS$

C. $\overline{PT} \cong \overline{RS}$

D. $TS = PQ$

13. In the figure, $\overline{AC} \cong \overline{AB}$. Find the value of x in terms of y.



A. $x = -2y + 160$

B. $x = 4y - 140$

C. $x = -4y + 40$

D. $x = y + 10$