

5.1, 5.2, & 5.4 TEST REVIEW

5 points added to your test, if complete!

PART 1. IMPORTANT GEOMETRIC TERMS

Write a thorough definition and draw a picture for each of the following geometric terms.

1. Triangle	
2. Scalene Triangle	
3. Isosceles Triangle	
4. Equilateral Triangle	
5. Acute Triangle	
6. Obtuse Triangle	
7. Right Triangle	
8. Equiangular Triangle	

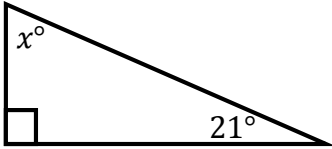
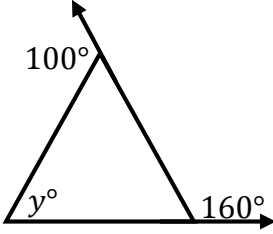
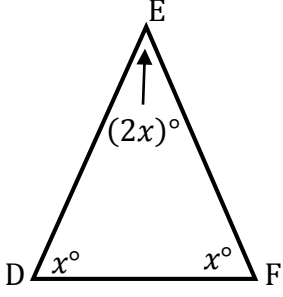
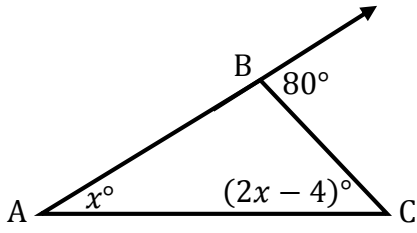
PART 2. TRIANGLE BASICS

The measures of two angles of a triangle are given. Find the measure of the third angle, then classify the triangle by ANGLES.

9. Third Angle = _____ Classification: _____	57°, 33°
10. Third Angle = _____ Classification: _____	36°, 52°
11. Third Angle = _____ Classification: _____	50°, 50°

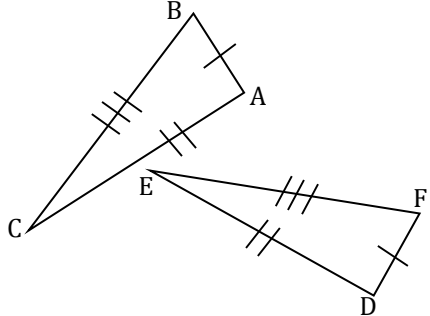
PART 3. ANGLES OF TRIANGLES

Find the specified value(s).

<p>12. $x =$ _____</p>	
<p>13. $y =$ _____</p>	
<p>14. $x =$ _____ $m\angle E =$ _____</p>	
<p>15. $x =$ _____ $m\angle C =$ _____ $m\angle ABC =$ _____</p>	

PART 4. CONGRUENT TRIANGLES

Given each set of congruent triangles, complete each of the following.

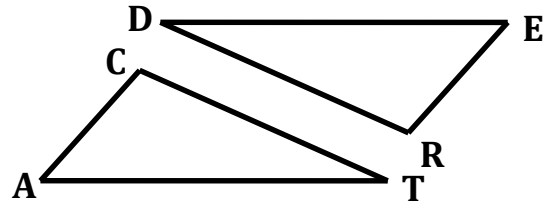
<p>16. $\angle S \cong$ _____ $\overline{FO} \cong$ _____ $\angle P \cong$ _____ $\overline{EO} \cong$ _____ $\angle R \cong$ _____ $\overline{EF} \cong$ _____ $\triangle SRP \cong \triangle$ _____</p>	<p style="text-align: center;">$\triangle RSP \cong \triangle FOE$</p>
<p>17. $\angle A \cong$ _____ $\overline{AB} \cong$ _____ $\angle B \cong$ _____ $\overline{BC} \cong$ _____ $\angle C \cong$ _____ $\overline{AC} \cong$ _____ $\triangle ABC \cong \triangle$ _____</p>	

18. If $\triangle CAT \cong \triangle RED$, $m\angle D = 39^\circ$, and $m\angle A = 44^\circ$, find the following.

$m\angle R =$ _____

$m\angle E =$ _____

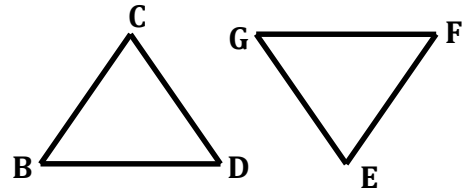
$m\angle T =$ _____



19. If $\triangle BCD \cong \triangle EFG$, $CD = 5x + 9$, and $FG = 8x - 3$, find the following.

$x =$ _____

$CD =$ _____



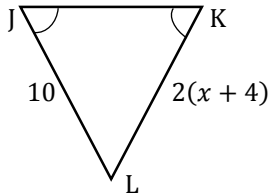
Determine whether each statement is true or false. Circle one.

20. TRUE or FALSE	If $\triangle ABC \cong \triangle XYZ$, then $\triangle BCA \cong \triangle YZX$.
21. TRUE or FALSE	If $\triangle ABC \cong \triangle XYZ$, then $\triangle ABC \cong \triangle XZY$.
22. TRUE or FALSE	If $\triangle ABC \cong \triangle XYZ$, then $\triangle BCA \cong \triangle ZYX$.

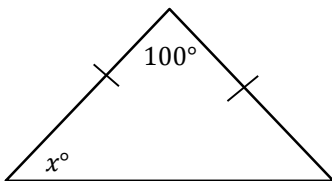
PART 5. ISOSCELES AND EQUILATERAL TRIANGLES

Find the following.

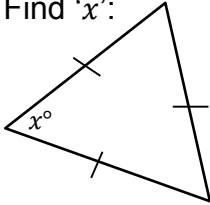
23. Find 'x':



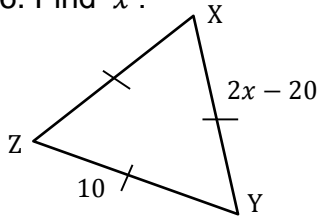
24. Find 'x':



25. Find 'x':

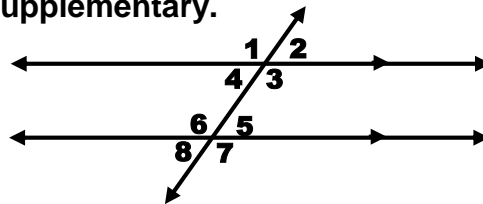


26. Find 'x':



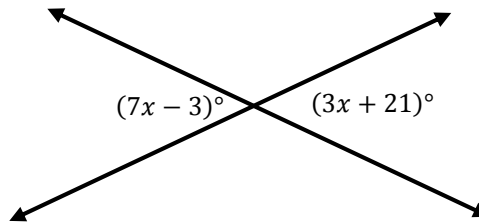
PART 6. REVIEW

For each of the following pairs of angles, tell what type of pair they are, and tell whether each pair is congruent or supplementary.



ANGLE PAIR	TYPE	\cong or SUPPLEMENTS
27. $\angle 1$ and $\angle 6$		
28. $\angle 2$ and $\angle 7$		
29. $\angle 5$ and $\angle 3$		
30. $\angle 4$ and $\angle 5$		
31. $\angle 1$ and $\angle 7$		

32. Find the value of 'x'.



33. If $A(2, 3)$ and $B(-4, -6)$, find \overline{AB} .

34. Find the midpoint of \overline{AB} described in #33.

A Mishmash of Answers:

97° $\angle O, \angle E, \angle F$
 A triangle with at least two sides congruent. A triangle in which all of the angles are acute. Alt. Ext., Congruent
 100° 92° 6
 Alt. Int., Congruent $3\sqrt{13}$ 1
 4 $\angle D, \angle F, \angle E$ 80 False
 44° A triangle with an obtuse angle. S. S. Int., Supp. DFE
 True A figure with three sides and three angles.
 69 90° $\overline{RS}, \overline{PS}, \overline{PR}$
 40 60 52°
 obtuse right
 A triangle with no two sides congruent. 39° Corresponding, Congruent 45
 15 90° OFE A triangle with all angles congruent.
 acute
 28 80°
 29
 $\overline{DF}, \overline{FE}, \overline{DE}$ False $\left(-1, -\frac{3}{2}\right)$
 A triangle with a right angle. S. S. Ext., Supp. A triangle with all sides congruent.