Geometry Module 7 Review Name: _____

1. In isosceles triangle ΔPQR, $\overline{QR}$ is the base.
   a) Draw a picture and label the congruent sides and congruent angles.

   b) If $m\angle Q = 8x - 3$ and $m\angle R = 2x + 15$, solve for x.

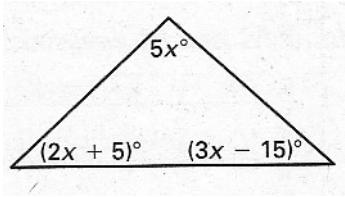
2. In ΔGEO, $m\angle G = 46°$ and $m\angle E = 87°$. Find $m\angle O$.

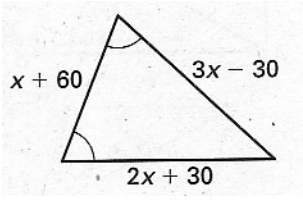
3. In ΔXYZ, $m\angle X = 2x$, $m\angle Y = x + 31$, and $m\angle Z = 3x - 37$.
   a) Find the value of x that makes this situation true.

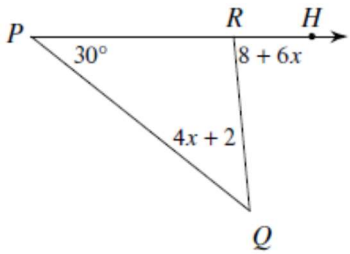
   b) Find the measure of each angle.

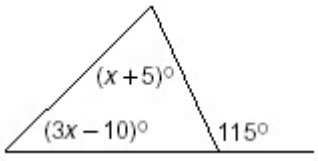
   c) Classify the triangle as isosceles, equilateral, or neither.

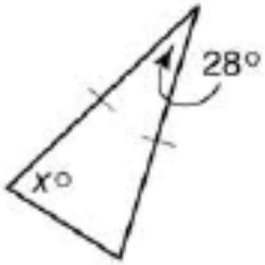
For Problems 4-8, find the value of x that makes the situation true.

4. 

5. 

6. 

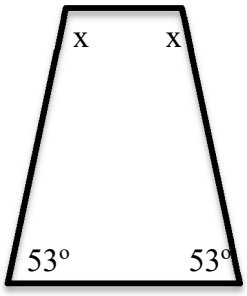
7. 

8. 

9. Find the sum of the interior angles in a figure with the given number of sides:
a) 10 b) 4 c) 9

10. The sum of 5 angles in a hexagon is $650°$.
a) What is the sum of all six angles? b) What must be the measure of the 6^{th} angle?

11.



a) What is the sum of the 4 angles in the quadrilateral?

b) Find x.

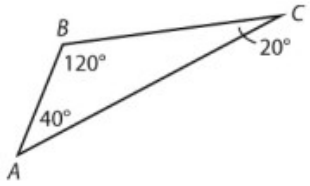
12. State whether the following measures can be the side lengths of a triangle:

	Yes	No
a) 4, 5, 2		
b) 3, 3, 6		
c) 20, 16, 5		
d) 11, 36, 22		

13. Two side length of a triangle are 10 and 13. Find the range of possible values for the third side.

____ $< x <$ _____

14. Put the sides in order from least to greatest:



15. Put the angles in order from least to greatest: