**3.4 Introduction to Triangles Part II Geometry**



**Directions: Solve for x. Then find each interior angle measure.**

1)   2)

**Directions: Find the measure of angle A.**

3)  4)

**Directions: The variable expressions represent the angle measures of a triangle. Find the measure of each angle. Then classify the triangle by its angles.**

5) m∠C = xᴼ 6) m∠W =xᴼ 7) m∠D = (x – 15)ᴼ

 m∠A = 2xᴼ m∠H = 7xᴼ m∠U = (2x – 165)ᴼ

 m∠T = (2x + 15)ᴼ m∠Y = xᴼ m∠H = 90ᴼ

**Directions: Determine if the three numbers can make the sides of a triangle.**

8) 7, 5, 4 9) 3, 6, 2 10) 5, 2, 4 11) 8, 2, 8

**Directions: Two sides of a triangle have the following measures. Find the range of possible measures for the third side.**

12) 9, 5 13) 5, 8 14) 6, 10 15) 6, 9

**Directions: Write the angles of the triangles in order from least to greatest.**

16) 17)  18) In ∆MOP,

 MO = 15

 OP = 25

 MP = 13

**Directions: Write the sides of the triangles in order from least to greatest.**

19)  20) 21) In ∆TOP,

 m∠T = 50ᴼ

 m∠O = 48ᴼ

 m∠P = 82ᴼ