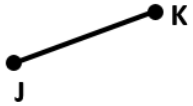
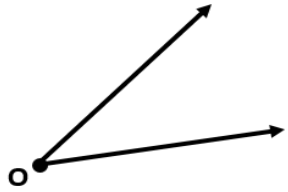
Unit 3 Quiz Review **Geometry**

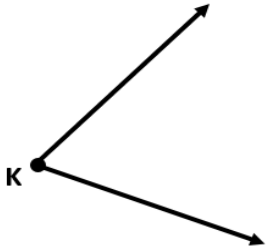
Directions: Complete each construction using a compass and a straightedge.

1) Use Segment Addition Postulate to combine the segments.



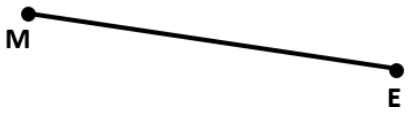
2) Use Angle Addition Postulate to combine the angles.



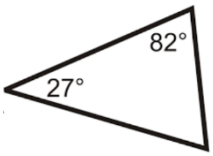


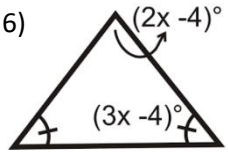
3) Complete the construction: $\frac{1}{2} * m\angle A$

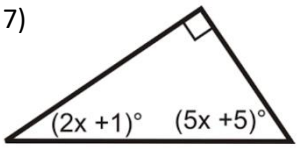
4) Complete the construction: $\frac{1}{4} ME$



Directions: Classify the triangle by its angles and sides.

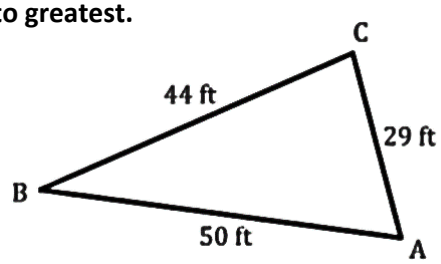
5) 

6) 

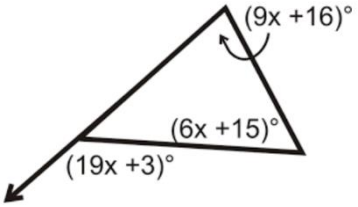
7) 

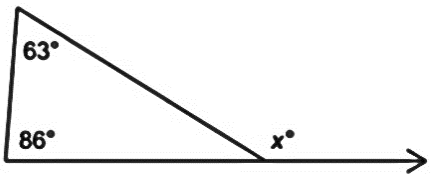
Directions: Write the triangle angles and sides in order from least to greatest.

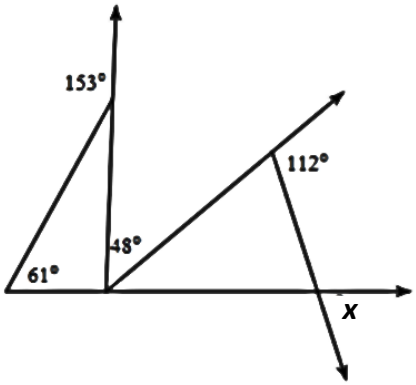
8) m$\angle D$ = (x – 15)°
m$\angle E$ = 90°
m$\angle F$ = (2x – 165)°

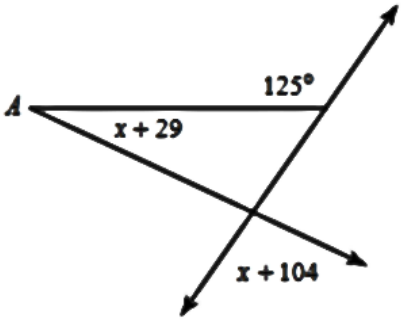
9) 

Directions: Solve for x.

10) 

11) 

12) 

13) 

Directions: Determine if the following sides can make a triangle.

14) 5, 6, 7

15) 1, 1, 2

16) 21, 21, 21

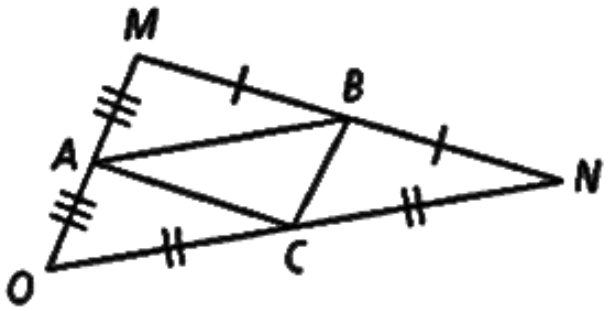
Directions: Determine the range of values for the third side of a triangle if the following lengths are two sides.

17) 7, 12

18) 12, 14

19) 5, 16

Directions: Use the figure to solve each problem.



20) $\overline{MN}$ ∥ ?

21) What midsegment is parallel to $\overline{MO}$?

22) If AB = 17.5, what is NO?

23) If MB = 2x – 5 and BN = 19, what is the value of x?

24) If AB = 3x – 1 and ON = 34, what is the value of x?

25) If m∠AOC = 37^{o}, what is m∠BCN?

26) If m∠BCN = 48^{o}, what is m∠CBA?

27) If MO = 32, MN = 45, and ON = 81, what is the perimeter of ΔABC?