Geometry R – Mr. Bo
Unit 6 – Day 3 HW

Name:_____
Date:_____

1. Complete the table by identifying the location (Inside, Outside, On) of each center for each type of triangle.

	Acute Triangle	**Obtuse Triangle**	**Right Triangle**
Circumcenter			
Incenter			
Orthocenter			
Centroid			

2. Complete the table.

	Name the *Point of Concurrence*	**Special Theorem**
⊥ Bisectors		
∠ Bisectors		
Altitudes		~~NONE~~
Medians		

____3. Where can the perpendicular bisectors of the sides of a right triangle intersect?

I. inside the triangle II. on the triangle III. outside the triangle

a. I only b. II only c. I or II only d. I, II, or II

____4. Where can the bisectors of the angles of an obtuse triangle intersect?

I. inside the triangle II. on the triangle III. outside the triangle

a. I only b. III only c. I or III only d. I, II, or II

____5. Where can the lines containing the altitudes of an Acute triangle intersect?

I. inside the triangle
II. on the triangle
III. outside the triangle

a. I only b. I or II only c. III only d. I, II, or II

____6. Which is the center of the largest circle that you could draw inside a given triangle?

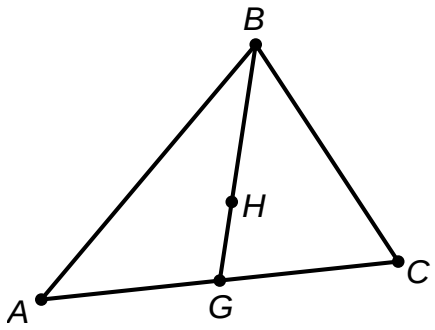
a. the point of concurrency of the altitudes of the triangle
b. the point of concurrency of the perpendicular bisectors of the sides of the triangle
c. the point of concurrency of the bisectors of the angles of the triangle
d. the point of concurrency of the medians of the triangle

____7. Which is the name of the smallest circle that can surround a triangle?

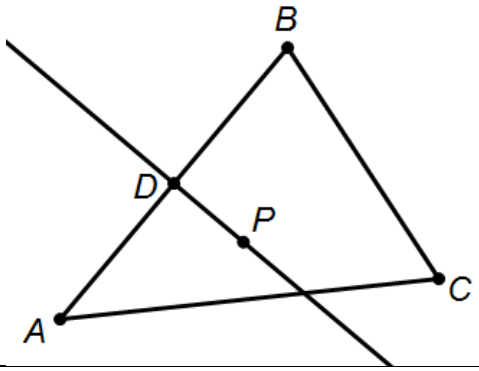
a. Inscribed circle
b. Circumscribed circle
c. Outscribed circle
d. Central circle

8.

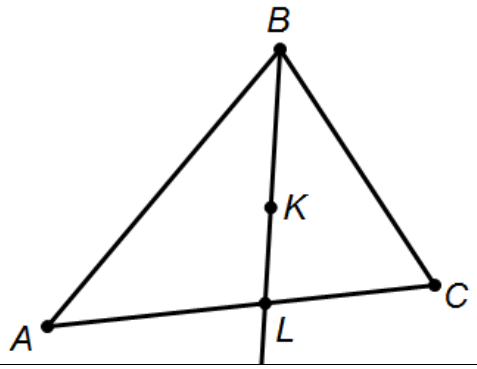
a. Given: Centroid H, HG = 6 and BH=3x-8. Solve for x.



b. Given: Circumcenter P, CP = 5, BD = 4. Find AP and AB.



c. Given: Incenter K, $m\angle A = 30^o$, $m\angle C = 70^o$. Find $m\angle ALB$ and $m\angle CLB$.



9. Given: Orthocenter M and $\overline{AB} \cong \overline{CB}$.
Prove: $\Delta ABN \cong \Delta CBN$.