THE WISDOM ACADEMY

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Class: 9th **Test#09: Math** **Total Marks:40** **Chap#11&3**

Student Name: _____ **Roll No:** _____

Q: 01 Encircle the correct option: (1x10)

1	How many types of triangles w.r.t sides?				
	a) two	b) Three	c) four	d) five	
2	In isosceles triangle _____ sides are of equal length.				
	a) two	b) Three	c) four	d) five	
3	In an obtuse triangle, the orthocenter lies:				
	a) Inside the triangle	b) outside the triangle	c) On one of the vertices	d) On one of the sides	
4	The point of concurrency of the medians of a triangle is:				
	a) circumference	b) circumcenter	c) centroid	d) none of above	
5	An equilateral triangle _____.	a) can be isosceles	b) can be right angled	c) can be obtuse angled	d) has each angle equal to 50°
6	The line segment joining the midpoint of a side to its opposite vertex in a triangle is called _____.				
	a) median	b) perpendicular bisector	c) angle bisector	d) circle	
7	Which of them is singular of Loci?	a) locus	b) lotus	c) lumerous	d) none of above
8	The angle bisectors of the triangle are:				
	a) congruent	b) concurrent	c) non-congruent	d) none of above	
9	In a right triangle one of the altitudes coincide with one of the:				
	a) medians	b) legs	c) angle bisectors	d) perpendicular bisector	
10	The point of concurrency of the altitudes of the triangle is:				
	a) incenter	b) outcenter	c) orthocenter	d) none of above	

Q: 02 Solve these Given Questions:

1) Draw ΔDEF, mDE = 6cm, m∠D = 110°, mEF = 9cm.If sin Θ = $\frac{3}{5}$ find the other trigonometric ratio, when θ lies in first quadrant.

2) Construct a triangle with sides 5cm, 6cm and 7cm. Is it possible?

3) Define circle?

4) Define median of triangle?

5) What do you mean by isosceles triangle?

6) What is right angle?

7) What is centroid?

8) Verify the angle bisectors of ΔABC *are concurrent,* $m\overline{AB}$ = 4.5cm, $m\angle A = 45^0$ and $m\overline{AC}$ = 5.3cm.

9) What is triangle inequality theorem?

10) What do you mean by perpendicular bisector?

Q: 03 Solve these Long Questions:

A. Verify the De Morgan Law: U {1,2,3, 4…...,20}, A {2,4,6, …..., 20 and B {1,3,5…...,19}.

B. If U = {5, 10, 15, 20, 25, 30, 35, 40} A = {5, 10}, B = {10, 20, 30} then Find $(A \cup B)^c = A^c \cap B^c$