

## DELHI PUBLIC SCHOOL, JAMMU

CLASS-IX  
Sub: Maths

ASSIGNMENT for the month of August 2018  
HERON'S FORMULA AND TRIANGLE

1. Find the area of rhombus whose perimeter is 200m and one the diagonal is 80m.
2. Find the perimeter of isosceles right triangle having an area of 100 sq.cm.
3. Side of rhombus is 20cm and one of diagonal is 24cm, find the length of other diagonal and area.
4. The lengths of side of triangle are in the ratio 2:3:4 and its perimeter is 144cm. Find the of triangle and height corresponding to the longest side.
5. If the area of equilateral triangle is  $81\sqrt{3}$  sq. cm .Find its perimeter.
6. Find the %age increased in the area of triangle if its each side is doubled.
7. Prove that the sum of two sides of triangle is greater than the third side.
8. Prove that the medians of an equilateral triangle are equal.
9. In a right angled triangle, one acute angle is double the other. Prove that the hypotenuse is double the smallest side.
10. If the bisector of the vertical angle of a triangle bisects the base of triangle, prove that triangle is isosceles.
11. Prove that the sum of any two sides of triangle is greater than twice the median drawn to the third side.
12. PQRS is square and SRT is an equilateral triangle. Prove that  $\angle PST = \angle QRT$ ,  $PT=QT$ ,  $\angle QTR = 15^\circ$ .

