Triangles : Worksheet -4

1. If $a^2 > b^2 + c^2$, then ΔABC is an _ _ _ _ _ _ _ _ _ _ triangle.
2. Area of a right-angled isosceles triangle whose hypotenuse is 'd' is _ _ _ _ _ _
3. 'O' is the point in the interior of the rectangle ABCD , then $OD^2 + OB^2$ = _ _ _
4. If the length of two medians of a triangle are equal, then the triangle is _ __ _ _ _ _.
5. If G is centroid of ΔABC then $\frac{AG^2 + BG^2 + CG^2}{AB^2 + BC^2 + CA^2}$ = _ _ _ _ _ _ _ _ _ _ _ _
6. If AD is internal angular bisector of $\angle BAC$, BD : DC = 2 : 3, then AC : AB = _ _ _ _
7. If x, y, z are the mid points of an equilateral triangle ABC, then Δxyz is_ _ _ _ _triangle.
8. A man goes 18 m due east and then 24 m due north. The distance from the starting point is: _ _ _ _ _ _ _ _ _ _ _ _
9. In ΔABC, D and E are points on AB and AC respectively such that $\overline{DE} \,//\, BC$. If $AD = x$, $AC = x + 9$; $AB = x + 13$ and $AE = x - 2$ then x = _ _ _ _ _ _ _ _ _ _
10. If a, b, c are the lengths of the sides of a right triangle ABC and hypotenuse $C = \sqrt{2ab}$, then $\angle BAC$ = _ _ _ _ _ _ _ _ _ _ _ _