Triangles : Worksheet -9

1. In an equilateral triangle with side a, prove that

(i) the altitude is of length $\dfrac{\sqrt{3}}{2}a$.   (ii) the area of the triangle is $\dfrac{\sqrt{3}}{4}a^2$.

2. In an triangle ABC, AD is drawn perpendicular to BC. Prove that

$AB^2 - BD^2 = AC^2 - CD^2$