Introduction to Trigonometry : Worksheet -4

1. Evaluate the following :

(i) $\sin 60° \cos 30° + \sin 30° \cos 60°$

(ii) $2 \tan^2 45° + \cos^2 30° - \sin^2 60°$

(iii) $\dfrac{\cos 45^0}{Sec30^0 + Cosec30^0}$

(iv) $\dfrac{\sin 30^0 + Tan45^0 - cosec60^0}{Sec30^0 + Cos30^0 + Cot45^0}$

(v) $\dfrac{5\cos^2 60^0 + \sec^2 30^0 - Tan^2 45^0}{Sin^2 30^0 + Cos^2 30^0}$

2. State whether the following are true or false. Justify your answer.

(i) sin (A + B) = sin A + sin B.

(ii) The value of sinθ increases as θincreases.

(iii) The value of cosθ increases as θincreases.

(iv) sinθ= cosθ for all values of θ.

(v) cot A is not defined for A = 0°.