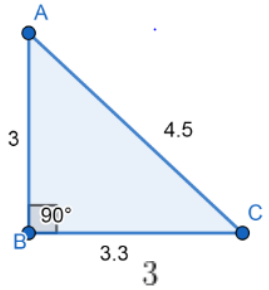
Directorate of Education, GNCT of Delhi

Subject: Mathematics | Worksheet: 37 | Date: 28th September 2020

Class X | Name of Student: _____ | Name of the Class Teacher: _____

Practice test (Introduction to Trigonometry)

1. **Write the measure adjacent side, opposite side and hypotenuse of angle A_____ , ____ , _____**



2. **If tan A = $\frac{3}{4}$,then sin A cos A = ----------**

3. **If x tan 45° sin 30° = cos 30° tan 30°, then x is equal to**
   (a) √3 (b) 1/2 (c) 1/√2 (d) 1

4. **sin ^{2}B = 2 sin B is true when B is equal to**
   (a) 90° (b) 60° (c) 30° (d) 0°

5. **5 tan^2 A – 5 sec^2 A + 1 is equal to**
   (a) 6 (b) -5 (c) 1 (d) -4

6. **If y sin 45° cos 45° = tan^2 45° – cos^2 30°, then y = …**
   (a) –1/2 (b)1/2 (c) -2 (d) 2

7. **If sin A = $\frac{1}{2}$ then the value of cot A is**
   (a) √3 (b) $\frac{1}{\sqrt{3}}$ (c) $\frac{\sqrt{3}}{1}$ (d) 1

8. **Given that sin θ = a/b , then tan θ =**
   (a) $\frac{b}{\sqrt{b^2-a^2}}$ **(b)** $\frac{\sqrt{b^2-a^2}}{b}$
   (c) $\frac{a}{\sqrt{b^2-a^2}}$ **(d)** $\frac{\sqrt{b^2-a^2}}{a}$

9. **Prove that (tanθ + 2) (2 tanθ + 1) = 5 tanθ + sec^2 θ**

10. **Prove :** $1+\frac{\cot^2 \Theta}{1+\operatorname{cosec}\Theta} = \operatorname{Cosec}\Theta$

ROUGH WORK