CHAPTER-8 | Introduction to Trigonometry

QUIZ PART-02

1. In triangle ABC, right-angled at B, with AB=24 cm and BC=7 cmBC=7cm, find sin A:

   A. $\frac{7}{25}$

   B. $\frac{24}{25}$

   C. $\frac{3}{5}$

   D. $\frac{5}{3}$ (A)

Explanation : Hypotenuse $AC= \sqrt{AB^2 + BC^2}=$ $\sqrt{24^2 + 7^2}$ = 25, so sin A= $\frac{AB}{AC}=\frac{24}{25}$

2. In the same triangle, cos A is:

   A. $\frac{7}{25}$ B. $\frac{24}{25}$

   C. $\frac{5}{3}$ D. $\frac{3}{5}$ (A)

Explanation: Cos A= $\frac{BC}{AC}=\frac{7}{25}$

3. If sin $A=\frac{3}{4}$, find cos A

   A. $\frac{1}{4}$ B. $\frac{\sqrt{7}}{4}$

   C. $\frac{\sqrt{5}}{4}$ D. $\frac{5}{4}$ (B)

Explanation: From $\sin^2 A + \cos^2 A=1$, cos A= $\frac{\sqrt{7}}{4}$

4. The ratio of the opposite side to the adjacent side is:

   A. cos θ B. sin θ

   C. tan θ D. sec θ (C)

Explanation: tan θ = Opposite / Adjacent.

5. The value of tan 45° is:

   A. 0

   B. 1

   C. $\sqrt{3}$

   D. 2 (B)

Explanation : tan 45°=1.

6. In a right-angled triangle, AB=24 cm and BC=7 cm, calculate tan C:

   A. $\frac{24}{7}$

   B. $\frac{7}{24}$

   C. 5

   D. $\frac{1}{5}$ (B)

Explanation : tan $C=\frac{AB}{AC}=\frac{24}{7}$

7. If cos $A=\frac{4}{5}$, find sec A:

   A. $\frac{5}{4}$ B. $\frac{5}{3}$

   C. $\frac{4}{3}$ D. $\frac{3}{5}$ (A)

Explanation : sec A= $\frac{1}{\cos A}=\frac{5}{4}$

8. For some angle A, sec A= $\frac{5}{4}$ Find cos A:

   A. $\frac{4}{5}$ B. $\frac{5}{4}$

   C. $\frac{3}{5}$ D. $\frac{2}{5}$ (A)

Explanation : sec A = $\frac{1}{\cos A}$, $so\ \cos A = \frac{4}{5}$

9. The value of cot 30° is:

   A. $\sqrt{3}$ B. $\frac{1}{\sqrt{3}}$

   C. 1 D. 0 (B)

Explanation : cot 30°= $\sqrt{3}$

10. If sin $A=\frac{5}{13}$. Find cos A:

   A. $\frac{12}{13}$ B. $\frac{8}{13}$

   C. $\frac{3}{5}$ D. $\frac{12}{5}$ (A)

Explanation : From $\sin^2 A + \cos^2 A= 1$, cos A= $\frac{12}{13}$