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(Affiliated to CBSE up to +2 Level)

CLASS: X **SUB.: MATHS (NCERT BASED)** **DATE: 13-10-2020**

1. The value of cos 0°. cos 1°. cos 2°. cos 3°... cos 89° cos 90° is

(a) 1 (b) -1 (c) 0 (d) $1/\sqrt{2}$

2. If x tan 45° sin 30° = cos 30° tan 30°, then x is equal to

(a) $\sqrt{3}$ (b) 12 (c) $1/\sqrt{2}$ (d) 1

3. If x and y are complementary angles, then

(a) sin x = sin y (b) tan x = tan y (c) cos x = cos y (d) sec x = cosec y

4. sin 2B = 2 sin B is true when B is equal to

(a) 90° (b) 60° (c) 30° (d) 0°

5. If A, B and C are interior angles of a ΔABC then cos(B+C2) is equal to

(a) $\sin \frac{A}{2}$ (b) $-\sin \frac{A}{2}$

(c) $\cos \frac{A}{2}$ (d) $-\cos \frac{A}{2}$

6. If A and (2A – 45°) are acute angles such that sin A = cos (2A – 45°), then tan A is equal to

(a) 0 (b) $1/\sqrt{3}$ (c) 1 (d) $\sqrt{3}$

7. If y sin 45° cos 45° = $\tan^2 45° - \cos^2 30°$, then y = ...

(a) –1/2 (b) ½ (c) -2 (d) 2

8. If $\sin\theta + \sin^2\theta = 1$, then $\cos^2\theta + \cos^4\theta$ = ..

(a) -1 (b) 0 (c) 1 (d) 2

9. $5\tan^2 A - 5\sec^2 A + 1$ is equal to

(a) 6 (b) -5 (c) 1 (d) -4

10. If sec A + tan A = x, then sec A =

(a) $\frac{x^2-1}{x}$ (b) $\frac{x^2-1}{2x}$

(c) $\frac{x^2+1}{x}$ (d) $\frac{x^2+1}{2x}$

11. If sec A + tan A = x, then tan A =

(a) $\frac{x^2-1}{x}$ (b) $\frac{x^2-1}{2x}$

(c) $\frac{x^2+1}{x}$ (d) $\frac{x^2+1}{2x}$