Board –Foundation	Class – 8th	Topic – Trigonometric Ratios

1. What is the value of $\frac{\sin\theta}{\cos\theta}$?

   (a) $\sec\theta$

   (b) $\tan\theta$

   (c) $\cot\theta$

   (d) $\sin\theta$

2. In a right-angled triangle, if the perpendicular and base are equal, what is the value of $\sin\theta$?

   (a) $\frac{1}{2}$

   (b) $\frac{1}{\sqrt{2}}$

   (c) 1

   (d) $\frac{\sqrt{3}}{2}$

3. If $\cos X = \frac{2}{3}$, then $\tan X$ is equal to:

   (a) $\frac{5}{2}$

   (b) $\sqrt{\frac{5}{2}}$

   (c) $\frac{\sqrt{5}}{2}$

   (d) $\frac{2}{\sqrt{5}}$

4. If $\cos X = \frac{a}{b}$, then $\sin X$ is equal to:

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

   (b) $\frac{b - a}{b}$

   (c) $\frac{\sqrt{b^2 - a^2}}{b}$

   (d) $\frac{\sqrt{b - a}}{b}$

5. What is the value of $\tan 45°$?

   (a) 0

   (b) 1

   (c) $\sqrt{3}$

   (d) $\frac{1}{\sqrt{3}}$

6. Which trigonometric ratio is defined as "opposite side / hypotenuse"?

   (a) $\sin\theta$

   (b) $\cos\theta$

   (c) $\tan\theta$

   (d) $\cot\theta$

7. If $\tan\theta = \frac{3}{4}$, what is $\sin\theta$?

   (a) $\frac{3}{5}$

   (b) $\frac{4}{5}$

   (c) $\frac{5}{3}$

   (d) $\frac{4}{3}$

8. The value of $\sin 0°$ is:

   (a) 1

   (b) 0

   (c) $\frac{1}{2}$

   (d) Undefined

9. The value of $\cos 90°$ is:

   (a) 1

   (b) 0

   (c) $\frac{1}{2}$

   (d) Undefined

10. If $\tan\theta = 1$, what is the value of θ where $0° < \theta < 90°$?

    (a) $0°$

    (b) $30°$

    (c) $45°$

    (d) $60°$

11. Which is correct for a right triangle with sides 3, 4, and 5?

    (a) $\sin\theta = \frac{4}{5}$

    (b) $\cos\theta = \frac{3}{5}$

    (c) $\tan\theta = \frac{4}{3}$

    (d) All of the above

12. Which of the following is an identity?

    (a) $\sin^2\theta + \cos^2\theta = 1$

    (b) $\tan\theta = \frac{\sin\theta}{\cos\theta}$

    (c) $\sec\theta = \frac{1}{\cos\theta}$

    (d) All of the above

13. If $\sin\theta = \frac{1}{2}$, what is the value of θ where $0° < \theta < 90°$?

    (a) $30°$

    (b) $45°$

    (c) $60°$

    (d) $90°$

14. What is the reciprocal of $\sin\theta$?

    (a) $\cos\theta$

    (b) $\tan\theta$

    (c) $\sec\theta$

    (d) θ

15. If the value of $\cos\theta$ is negative and $\sin\theta$ is positive, in which quadrant does θ lie?

    (a) I

    (b) II

    (c) III

    (d) IV