

Trigonometry

✓ Questions

1. What is the value of $\sin 90^\circ$?
A) 0
B) 1
C) $\frac{1}{2}$
D) $2\sqrt{2}$

2. $\tan \theta = \frac{\sin \theta}{\cos \theta}$ is a:
A) Reciprocal identity
B) Quotient identity
C) Pythagorean identity
D) None of these

3. Which of the following is **undefined**?
A) $\tan 0^\circ$
B) $\cot 90^\circ$
C) $\sec 0^\circ$
D) $\cos 0^\circ$

4. What is the value of $\cos 60^\circ$?
A) $\frac{1}{2}$
B) $\frac{\sqrt{3}}{2}$
C) 0
D) 1

5. $\sin^2 \theta + \cos^2 \theta = 1$
A) 0
B) 2
C) 1
D) Undefined

6. If $\tan A = \frac{3}{4}$, find $\sec A$.
A) $\frac{4}{5}$
B) $\frac{5}{4}$
C) $\frac{5}{3}$
D) $\frac{5}{4}$

7. Which trigonometric ratio is **positive in the 2nd quadrant**?
A) $\tan \theta$

- B) $\cos \theta \cos \theta$
- C) $\sin \theta \sin \theta$
- D) $\sec \theta \sec \theta$

8. What is the value of $\tan 45^\circ$?
- A) 0
 - B) 1
 - C) Undefined
 - D) $3\sqrt{3}$

9. If $\sin \theta = \frac{3}{5}$, then $\cos \theta =$
- A) $\frac{4}{5}$
 - B) $\frac{5}{4}$
 - C) $\frac{5}{3}$
 - D) $\frac{3}{4}$

10. What is the value of $\cot 60^\circ$?
- A) $\frac{1}{\sqrt{3}}$
 - B) 0
 - C) $\frac{1}{\sqrt{2}}$
 - D) $\frac{1}{\sqrt{3}}$

11. Which of these is **not a valid** trigonometric identity?
- A) $1 + \tan^2 \theta = \sec^2 \theta$
 - B) $1 + \cot^2 \theta = \csc^2 \theta$
 - C) $\sin^2 \theta - \cos^2 \theta = 1$
 - D) $\sin^2 \theta + \cos^2 \theta = 1$

12. What is the **reciprocal** of $\sin \theta$?
- A) $\sec \theta$
 - B) $\cot \theta$
 - C) $\csc \theta$
 - D) $\tan \theta$

13. In which quadrant is 210° ?
- A) I
 - B) II
 - C) III
 - D) IV

14. Convert π radians to degrees.

- A) 90°
 - B) 180°
 - C) 360°
 - D) 270°
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15. The value of $\sec 0^\circ$ is:

- A) 0
 - B) 1
 - C) Undefined
 - D) Not defined
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16. What is the period of the function $y = \tan xy = \tan x$?

- A) π
 - B) 2π
 - C) 1
 - D) 2π
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17. $\sin(-x) = \sin(-x) = \sin(-x) = ?$

- A) $\sin x$
 - B) $-\sin x$
 - C) $\cos x$
 - D) $-\cos x$
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18. Find $\sin^2 30^\circ + \cos^2 30^\circ$.

- A) 0
 - B) $\frac{1}{2}$
 - C) 1
 - D) $\frac{3}{2}$
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19. If $\cot \theta = 0$, then $\theta = ?$

- A) 0°
 - B) 90°
 - C) 180°
 - D) 270°
-

20. The maximum value of $\sin \theta$ is:

- A) 0
- B) 1
- C) $\frac{1}{2}$
- D) Infinity

 **Answer Key**

1. **B**

2. **B**

3. **B**

4. **A**

5. **C**

6. **D**

7. **C**

8. **B**

9. **A**

10. **D**

11. **C**

12. **C**

13. **C**

14. **B**

15. **B**

16. **A**

17. **B**

18. **C**

19. **B**

20. **B**