

Foundations of Trigonometry

Mathematics · Practice Test · 10 Questions

1. Which trigonometric function represents the ratio of the side opposite an angle to the hypotenuse in a right-angled triangle?

- A) Sine
- B) Cosine
- C) Tangent
- D) Secant

2. In a right-angled triangle, what is the sum of the two non-right angles?

- A) 45 degrees
- B) 90 degrees
- C) 180 degrees
- D) 360 degrees

3. What is the value of the sine of 90 degrees?

- A) 0
- B) 0.5
- C) 1
- D) Undefined

4. Hipparchus of Nicaea is historically recognized for creating the first known table of which function?

- A) Sine
- B) Cosine
- C) Chord
- D) Tangent

5. Which theorem states that the square of the hypotenuse is equal to the sum of the squares of the other two sides?

- A) Pythagorean theorem
- B) Thales's theorem
- C) Euclidean theorem
- D) Law of Sines

6. What is the standard unit of measurement for angles in trigonometry that corresponds to the radius of a circle wrapped around its circumference?

- A) Degree
- B) Gradian
- C) Radian
- D) Minute

7. In a right triangle, the tangent of an angle is equal to the sine divided by which other function?

- A) Cosine
- B) Secant
- C) Cosecant
- D) Cotangent

8. What is the value of the cosine of 0 degrees?

- A) -1
- B) 0
- C) 0.5
- D) 1

9. How many degrees are in a full circle?

- A) 90
- B) 180
- C) 270
- D) 360

10. The study of trigonometry was originally developed to assist in the calculation of distances and angles for which field?

- A) Astronomy
- B) Biology
- C) Geology
- D) Chemistry