

Trigonometry Fundamentals

Trigonometry · Answer Key · 25 Questions

1. In a right-angled triangle, what is the name of the side located opposite the right angle?

- A) Adjacent
- B) Hypotenuse**
- C) Base
- D) Height

2. The study of trigonometry is primarily based on the properties of which geometric shape?

- A) Circle
- B) Square
- C) Triangle**
- D) Rectangle

3. If one angle of a right-angled triangle is 90 degrees, what is the sum of the other two angles?

- A) 45 degrees
- B) 90 degrees**
- C) 180 degrees
- D) 60 degrees

4. In a right-angled triangle, the sine of an angle is defined as the ratio of the length of the opposite side to the length of which other side?

- A) Adjacent side
- B) Hypotenuse**
- C) Base
- D) Vertex

5. Which term describes a triangle where all three sides have different lengths?

- A) Equilateral
- B) Isosceles
- C) Scalene**
- D) Right-angled

6. What is the total sum of the interior angles of any triangle?

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

7. Which ratio represents the tangent of an angle in a right-angled triangle?

- A) Opposite / Adjacent**
- B) Adjacent / Hypotenuse
- C) Opposite / Hypotenuse
- D) Hypotenuse / Opposite

8. A triangle that has two sides of equal length is known as what?

- A) Equilateral
- B) Scalene
- C) Isosceles**
- D) Obtuse

9. What is the name of an angle that measures exactly 90 degrees?

- A) Acute angle
- B) Obtuse angle
- C) Right angle**
- D) Reflex angle

10. Which trigonometric function is defined as the ratio of the adjacent side to the hypotenuse?

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

11. An angle that measures less than 90 degrees is classified as what?

- A) Acute**
- B) Obtuse
- C) Right
- D) Straight

12. What is a triangle called if all three of its angles are less than 90 degrees?

- A) Right triangle
- B) Obtuse triangle
- C) Acute triangle**
- D) Straight triangle

13. If a triangle has an angle greater than 90 degrees, it is classified as what?

- A) Acute
- B) Obtuse**
- C) Right
- D) Equilateral

14. In a right triangle, the side next to a specific angle (that is not the hypotenuse) is called what?

- A) Opposite
- B) Adjacent**
- C) Hypotenuse
- D) Diagonal

15. Which instrument is commonly used to measure angles in geometry?

- A) Compass
- B) Protractor**
- C) Ruler
- D) Scale

16. What is the value of the longest side in a right-angled triangle?

- A) Opposite
- B) Adjacent
- C) Hypotenuse**
- D) Base

17. A triangle with three equal sides and three equal angles is called what?

- A) Scalene
- B) Isosceles
- C) Equilateral**
- D) Right

18. If a triangle is 'equilateral', what is the measurement of each of its interior angles?

- A) 45 degrees
- B) 60 degrees**
- C) 90 degrees
- D) 30 degrees

19. Which mathematician is often associated with the theorem relating the sides of a right-angled triangle?

- A) Pythagoras**
- B) Einstein
- C) Newton
- D) Euclid

20. What is the name for a triangle that has one 90-degree angle?

- A) Acute triangle
- B) Obtuse triangle
- C) Right triangle**
- D) Scalene triangle

21. In trigonometry, what does the 'hypotenuse' refer to?

- A) The shortest side
- B) The longest side**
- C) An angle
- D) A vertex

22. The Greek letter 'theta' (θ) is commonly used in trigonometry to represent what?

- A) Side length
- B) Angle**
- C) Area
- D) Perimeter

23. How many sides does a triangle have?

- A) 2
- B) 3**
- C) 4
- D) 5

24. An angle of exactly 180 degrees is known as what type of angle?

- A) Right
- B) Acute
- C) Straight**
- D) Reflex

25. Which geometric ratio relates the 'opposite' side to the 'hypotenuse' in a right triangle?

- A) Sine**
- B) Cosine
- C) Tangent
- D) Cotangent