

Pre-Calculus Foundations

Mathematics · Practice Test · 15 Questions

1. What is the value of the mathematical constant pi (?) rounded to two decimal places?

- A) 3.12
- B) 3.14
- C) 3.16
- D) 3.18

2. In a Cartesian coordinate system, what is the horizontal axis typically called?

- A) The Y-axis
- B) The Z-axis
- C) The X-axis
- D) The Origin

3. What is the slope of a horizontal line on a graph?

- A) One
- B) Undefined
- C) Negative
- D) Zero

4. What is the result of squaring the number 12?

- A) 120
- B) 144
- C) 169
- D) 196

5. If a function is written as $f(x) = 2x + 3$, what is the value of $f(x)$ when $x = 4$?

- A) 7
- B) 9
- C) 11
- D) 14

6. A polygon with five sides is known as what?

- A) Hexagon
- B) Pentagon
- C) Heptagon
- D) Octagon

7. Which term describes the set of all possible input values for a function?

- A) Domain
- B) Range
- C) Slope
- D) Intercept

8. What is the sum of the interior angles of a triangle in Euclidean geometry?

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

9. In the equation $y = mx + b$, what does 'm' represent?

- A) Y-intercept
- B) Slope
- C) Variable
- D) Constant

10. What is the square root of 81?

- A) 7
- B) 8
- C) 9
- D) 10

11. Which mathematical operation is the inverse of exponentiation?

- A) Addition
- B) Subtraction
- C) Multiplication
- D) Logarithm

12. What is the product of 0 and any real number?

- A) The number itself
- B) One
- C) Zero
- D) Undefined

13. What is the name for an angle that measures exactly 90 degrees?

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

14. What is the absolute value of -15?

- A) -15
- B) 0
- C) 1
- D) 15

15. If a sequence is 2, 4, 8, 16..., what is the next number in the pattern?

- A) 20
- B) 24
- C) 32
- D) 64