

# Calculus Basics for Young Learners

Calculus · Practice Test · 10 Questions

---

**1. What is the primary branch of calculus that deals with finding the rate of change of a function?**

- A) Differential Calculus
- B) Arithmetic
- C) Geometry
- D) Statistics

**2. Which mathematical concept is used to find the slope of a curve at a single point?**

- A) The derivative
- B) A square root
- C) A factor
- D) The circumference

**3. Calculus is largely credited to being developed independently by Isaac Newton and which other mathematician?**

- A) Gottfried Wilhelm Leibniz
- B) Pythagoras
- C) Albert Einstein
- D) Blaise Pascal

**4. In calculus, what does the symbol 'dx' typically represent in an expression?**

- A) An infinitely small change in x
- B) A multiplication sign
- C) The distance of x
- D) The variable x squared

**5. What branch of calculus is concerned with finding areas under curves and accumulation?**

- A) Integral Calculus
- B) Basic Addition
- C) Linear Algebra
- D) Trigonometry

**6. A line that just touches a curve at a single point without crossing it is known as what?**

- A) A tangent line
- B) A parallel line
- C) A diameter
- D) A perpendicular line

**7. What is the name for the study of how things change over time, which is the foundation of calculus?**

- A) Calculus
- B) Geometry
- C) Algebra
- D) Arithmetic

**8. Which of these functions represents a straight line, which has a constant rate of change?**

- A)  $y = mx + b$
- B)  $y = x^2$
- C)  $y = x^3$
- D)  $y = \sin(x)$

**9. When a value in a function gets closer and closer to a specific number without necessarily reaching it, this is called a what?**

- A) Limit
- B) Total
- C) Maximum
- D) Variable

**10. Calculus is essential for calculating the instantaneous speed of an object moving at which type of velocity?**

- A) Variable velocity
- B) Constant speed
- C) Stationary
- D) Static