

- Concerns the infinitely big and infinitely small. (Think infinitely small and infinitely big)
- Derivatives: Instantaneous rates of change
- Integrals: Change over an interval
- Specific types of lines:
  - Tangent lines (touches function at one point)
  - Secant lines (crosses function at two points)
  - Normal lines (crosses function perpendicularly)
- Applications
  - Physics
    - Single-variable calculus is useful in modeling classical Newtonian mechanics
    - Multivariable calculus is useful in more advanced analysis of mechanics and electromagnetism
  - Economics (optimization and modeling)
  - Statistical analysis of a continuous probability density function
  - Mathematical modeling
    - Economic models
    - Approximations
    - Flow rates
    - Flux