

Don Bosco Technical Institute

AP Physics C Prep

Day 1, Part 12: Putting It All Together



Summary – Day 1

- 3 Basic Operations of Calculus
 - Derivatives take in a function and give you the rate of change
 - Indefinite integrals take in the rate of change and give you the function
 - Definite integrals take in a function and 2 boundaries and give you the area under the curve
- Limits: Solve by simplifying and substitution
 - Factor and cancel
 - Rationalize denominators
 - Add/subtract with least common denominator
 - Simplify compound fractions
- A derivative is also the slope of the tangent
 - Derivatives do not exist at cusps and discontinuities
 - If the tangent is vertical, then slope is either $+\infty$ or $-\infty$ (take the limit)
 - Graph the function, draw tangents, and calculate each of their slopes.



Up Next...

- Sample problem similar to the homework problem
 - This will start automatically if you are using the AP Physics C Prep Day 1 playlist.
- Homework (sent out via e-mail)

