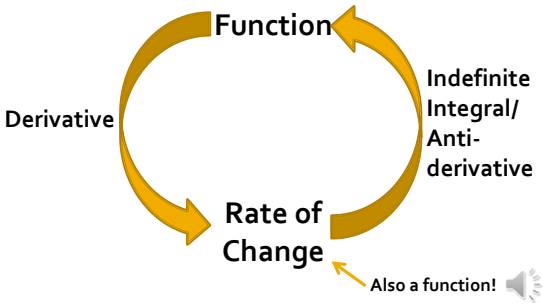
Don Bosco Technical Institute

AP Physics C Prep
Day 8: Simple Indefinite Integrals

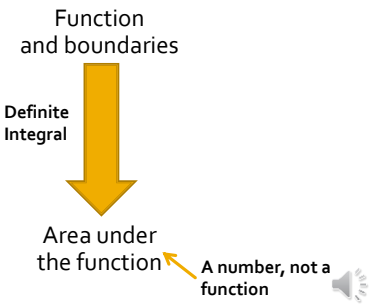
Learning Goals

- By the end of this lesson, you should be able to…
  - calculate the indefinite integral of a function involving
    - x^n
    - $1/x$
    - e^x
    - sin(x)
    - cos(x)
  - The solutions that you calculate are called "general solutions" because the include an arbitrary constant "+c"
    - We will later learn how to solve for c

3 Basic Operations of Calculus



3 Basic Operations of Calculus

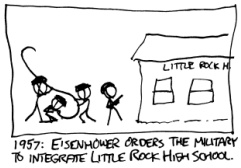


Handouts

- All of the formulas needed for this section are in the handout "Integrals Reference Sheet.pdf"
  - Print this before viewing the videos

Since there's no song in this playlist…

Integral of x^2 with respect to x $\int x^2 dx$



https://xkcd.com/821/

Up Next…

- 6 videos by Khan Academy and emt007
  - https://youtu.be/MMv-027KEqU
  - https://youtu.be/QxbJsg-Vdms
  - https://youtu.be/cBi4a1iSaPk
  - https://youtu.be/sPPjk4aXzmQ
  - https://youtu.be/hXg-6YgAARk
  - https://youtu.be/Vkq94YtRrg8
- These videos will play automatically if you are using the AP Physics C Prep Day 8v2 playlist