

Things You Really Gotta Know Part 1:

Exponent Rules:

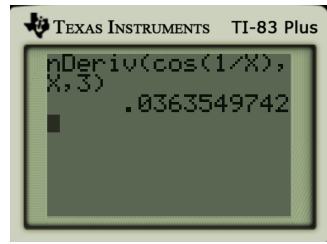
$$X^{-a} = \frac{1}{X^a} \quad \text{Ex: } X^{-3} = \frac{1}{X^3}$$

$$X^{\frac{a}{b}} = \sqrt[b]{X^a} \quad \text{Ex: } X^{\frac{4}{7}} = \sqrt[7]{X^4}$$

$$X^0 = 1 \quad \ln(e) = 1$$

$$\ln(e^x) = x \quad \text{Ex: } \ln(e^4) = 4$$

Evaluating a derivative:

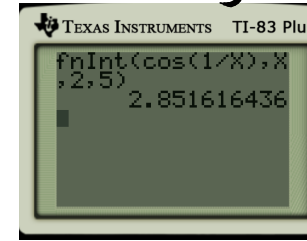


↑ This shows $f'(3)$ where $f(x) = \cos(\frac{1}{x})$

- ① MATH → nDeriv
- ② format: $nDeriv(f(x), x, a)$

↓
 $f'(a)$

Evaluating an Integral



↑ This shows: $\int_2^5 \cos(\frac{1}{x}) dx$

- ① MATH → fnInt
- ② Format: $fnInt(f(x), x, a, b)$

↓
 $\int_a^b f(x) dx$

Finding zeroes on the Calculator: (x-intercepts)



- 1) Graph your function
- 2) 2nd TRACE → zero
- 3) Choose point to the left of the zero.
- 4) Choose point to the right of the zero.
- 5) ENTER two times

Finding points of intersection on the Calculator:



- 1) Graph $y_1 =$ and $y_2 =$
- 2) 2nd TRACE → intersection
- *3) Get as close as you can to the point and hit enter
- 4) The cursor should move to the next point of intersection.
- 5) Hit enter twice
- 6) Repeat for all points of intersection.