## Introduction to Linear Approximation

We're starting a new unit: applications of differentiation.

We're going to do two applications today. The first is linear approximations, which are encompassed by the single formula:

$$f(x) \approx f(x_0) + f'(x_0)(x - x_0)$$

but it will take at least half an hour to explain how this formula is used.

MIT OpenCourseWare http://ocw.mit.edu

18.01SC Single Variable Calculus Fall 2010

For information about citing these materials or our Terms of Use, visit: http://ocw.mit.edu/terms.