## 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:

$$
f(x) \approx f\left(x_{0}\right)+f^{\prime}\left(x_{0}\right)\left(x-x_{0}\right)
$$

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

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### 18.01SC Single Variable Calculus] []

Fall 2010 ㅁ

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