

4.7 - Relative Rates of Change

The Question Economists want to answer: When will price increase result in an increase in revenue?

Relative Rate of Change of $f(x)$ is $\frac{f'(x)}{f(x)}$.

Percent Rate of Change of $f(x)$ is $p(x) = 100 * \frac{f'(x)}{f(x)}$.

Consider $\frac{d}{dx} \ln f(x)$.

Ex: A model for Gross Domestic Product (GDP) in billions is given by

$$f(t) = 280 t + 11,147 , \text{ where } t = 0 \text{ for the year 2000.}$$

Find the percentage rate of change of the GDP for the year 2008.

4.7 HW # 1 - 23 (every other odd)