

Average Rate of Change

Lecture 12

Section 2.1

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Tue, Feb 7, 2017

Reminder

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- Test #1 is this Friday, February 10.

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- Be there.

Objectives

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- The concept of average rate of change.

Average Rate of Change

Definition (Average Rate of Change)

The **average rate of change** of $f(x)$ with respect to x over an interval from $x = a$ to $x = b$ is

$$\frac{f(b) - f(a)}{b - a}.$$

Average Rate of Change

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Let the cost function be

$$C(x) = 20x + 8000$$

where x is the number of units produced. Find the average rate of change of cost relative to production as production

- (a) increases from $x = 100$ to $x = 200$.
- (b) increases from $x = 200$ to $x = 300$.
- (c) increases from $x = 300$ to $x = 400$.

Average Rate of Change

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