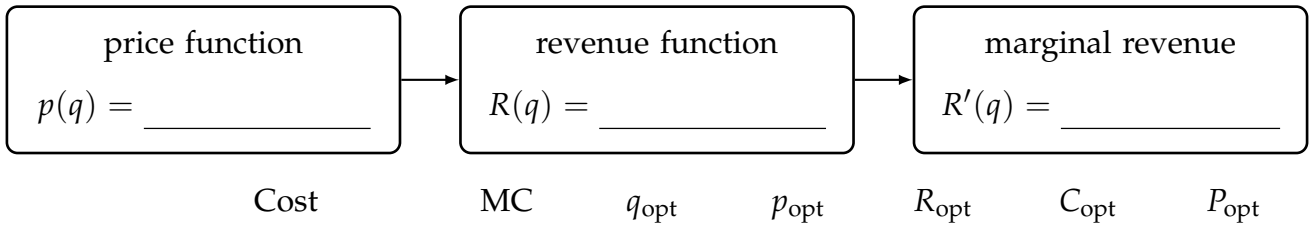


# Lecture Handout #20: Nov 8

## Profit Maximization: Changing Costs

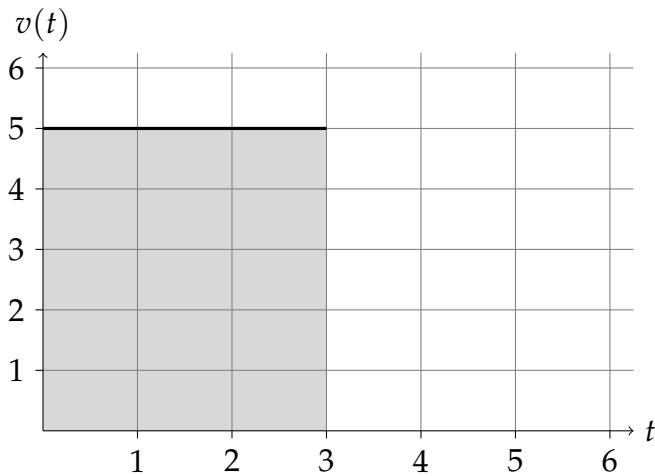


Before: \_\_\_\_\_

After: \_\_\_\_\_

## Accumulated Change

Constant velocity: 5 m/s for 3 seconds, then \_\_\_\_\_ m/s for \_\_\_\_\_ s, then \_\_\_\_\_ m/s for \_\_\_\_\_ s



total distance

$$\underline{\hspace{1cm}} \cdot \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

$$+ \underline{\hspace{1cm}} \cdot \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

$$+ \underline{\hspace{1cm}} \cdot \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

### Continuously increasing velocity:

$t$	0	1	2	3	4	5	6
$v(t)$	10	_____	21	_____	28	_____	31

### Two-second intervals:

Low estimate: \_\_\_\_\_ · \_\_\_\_\_ + \_\_\_\_\_ · \_\_\_\_\_ + \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

High estimate: \_\_\_\_\_ · \_\_\_\_\_ + \_\_\_\_\_ · \_\_\_\_\_ + \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

### One-second intervals:

Low estimate: \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_

High estimate: \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_