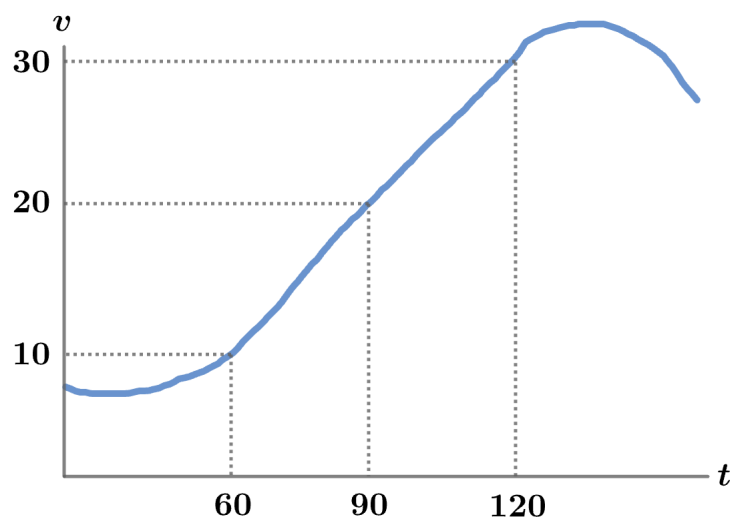


2007 F=ma Exam: Problem 2

Kevin S. Huang



From kinematics,

$$a = \frac{dv}{dt}$$

so acceleration corresponds to the slope on a v - t plot. The slope at $t = 90$ s is

$$a = \frac{\Delta v}{\Delta t} = \frac{30 \text{ m/s} - 10 \text{ m/s}}{120 \text{ s} - 60 \text{ s}} = 0.33 \text{ m/s}^2$$

so the answer is B.