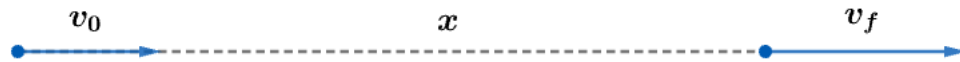


2008 F=ma Exam: Problem 1

Kevin S. Huang



Recall our kinematics equation,

$$v_f^2 = v_0^2 + 2ax$$

We have

$$a = \frac{v_f^2 - v_0^2}{2x} = \frac{(18 \text{ m/s})^2 - (10 \text{ m/s})^2}{2(40 \text{ m})} = 2.8 \text{ m/s}^2$$

so the answer is D.