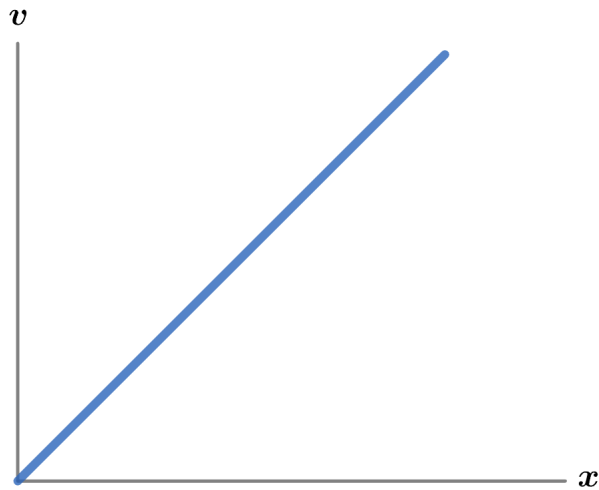


2020A F=ma Exam: Problem 8

Kevin S. Huang



Since $v = \dot{x} = kx$, we have

$$x = Ae^{kt}$$

so

$$a = \ddot{x} = k^2 Ae^{kt} = k^2 x$$

The acceleration is linear in the position so the answer is C.