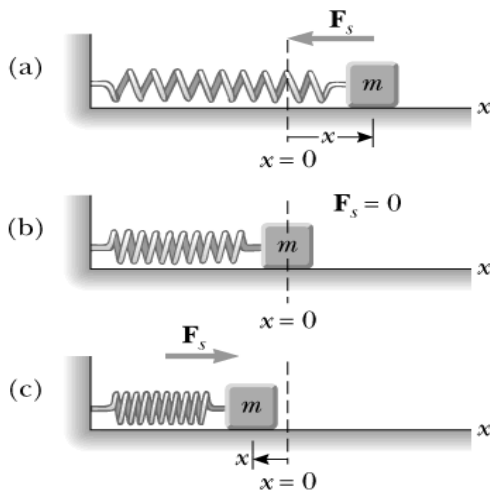


Oscillations / Periodic Motion

- Young and Freedman: Chapter 13
 - Mass and spring
 - Pendulum
 - Energy
 - Damped and forced oscillations
 - Resonance

Mass and Spring: lecture 1



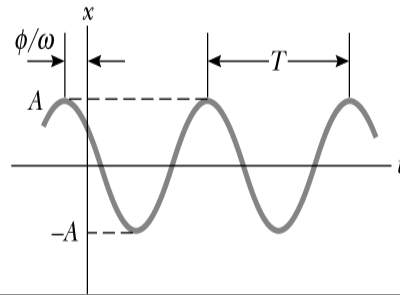
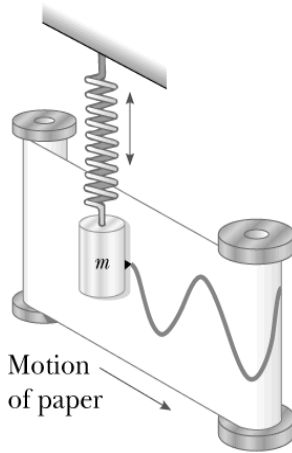
$$F = -kx$$



$$\omega = \sqrt{\frac{k}{m}}$$

Harcourt, Inc.

SHM as a function of time



$$x(t) = A \cos(\omega t + \phi)$$

Position, velocity and acceleration

