2. Concept Simulation 4.1 at [www.wiley.com/college/cutnell](http://www.wiley.com/college/cutnell) (6th Ed. Student Companion Site) reviews the central idea in this problem. A boat has a mass of 6800 kg. Its engines generate a drive force of 4100 N, due west, while the wind exerts a force of 800 N, due east, and the water exerts a resistive force of 1200 N due east. What is the magnitude and direction of the boat’s acceleration?

6. Interactive Learning Ware 4.1 ([http://www3.interscience.wiley.com:8100/legacy/college/cutnell/0471151831/ilw/audio/ilw.html](http://www3.interscience.wiley.com:8100/legacy/college/cutnell/0471151831/ilw/audio/ilw.html)) reviews the approach taken in problems such as this one. A 1580-kg car is traveling with a speed of 15.0 m/s. What is the magnitude of the horizontal net force that is required to bring the car to a halt in a distance of 50.0 m?

8. An arrow, starting from rest, leaves the bow with a speed of 15.0 m/s. If the average force exerted on the arrow by the bow were doubled, all else remaining the same, with what speed would the arrow leave the bow?