Group Practice

Work

1. A tugboat pulls a ship with a constant net horizontal force of 5.00×10^3 N and causes the ship to move through a harbor. How much work is done on the ship if it moves a distance of 3.00 km?
   [1.5×10^7 J]   [8.3×10^3 J]   [2.4×10^8 J]

2. A weight lifter lifts a set of weights a vertical distance of 2.00 m. If a constant net force of 350 N is exerted on the weights, what is the net work done on the weights?
   [520 J]   [350 J]   [700 J]

3. A shopper in a supermarket pushes a cart with a force of 35 N directed at an angle of 25° downward from the horizontal. Find the work done by the shopper on the cart as the shopper moves along a 50.0 m length of aisle.
   [1590 J]   [1750 J]   [875 J]

4. If 2.0 J of work is done in raising a 180 g apple, how far is it lifted?
   [1.76 m]   [1.13 m]   [2.00 m]