Name: Date: Period:

Newton #4 (Net Force Problems; Period 6 Edit)

Remember, all problems must include a Free-Body Diagram.

$F_{NET} = ma$ $F_{NET} = \pm F_1 \pm F_2 \pm \cdots$ $F_G = mg$ $g = 9.8\,\text{m/s}^2$

Consolidation

Before opening her parachute, a 57-kg skydiver experiences 457 N of air drag. What is the magnitude of her downward acceleration?

Exit Ticket

1. You and a friend are able to use a rope to pull a giant cement statue across the ground with an acceleration of 0.07 m/s^2. If the tension on the rope is 980 N and the force of friction on the block is 300 N, what is the mass of the statue?

2. Bobby is lifting buckets of water straight up out of a well using a rope. If he applies a force of 50 N to a bucket with a mass of 3.2 kg, what is the acceleration of the bucket?