

Interpret Net Force and Acceleration



Name: _____ Date: _____

Use the material to work through each task. Show the requested response.

A simplified motion model

For an object of constant mass, net force $F = ma$. Force is measured in newtons, mass in kilograms and acceleration in meters per second squared. Net force, not just one force, determines acceleration.

1. Find net force for mass 2 kg and acceleration 3 m/s².

2. Find acceleration for net force 12 N and mass 4 kg.

3. Two horizontal forces are 10 N right and 6 N left. Find net force.

4. What is acceleration when net force is zero?

5. With the same net force, what happens to acceleration if mass doubles?

6. Does zero net force require an object to be at rest?
