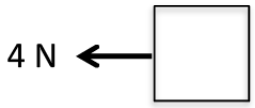
Name: _____ Period: _____

The force that results from all the combined forces acting on the object is called the **net force**. Calculate the net force acting on the box in the following problems.

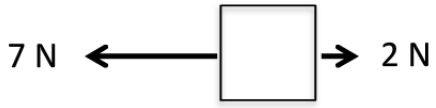
Be sure to include the direction of the net force (left or right)!

1.



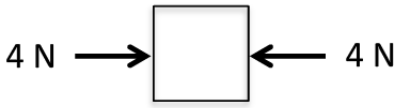
Net Force:

2.



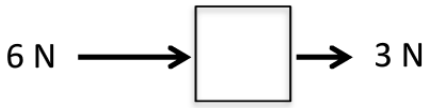
Net Force:

3.



Net Force:

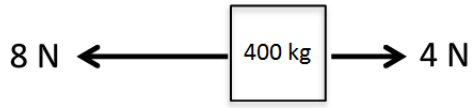
4.



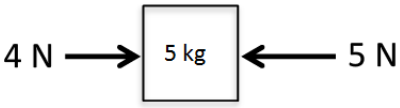
Net Force:

Calculate acceleration.

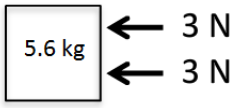
5.



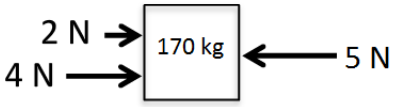
6.



7.

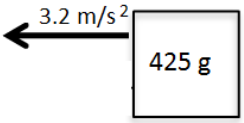


8.

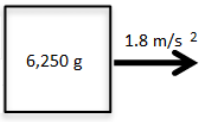


Calculate Force.

9.



10.



Word Problem Practice.

A construction worker pushes a wheelbarrow with a total mass of 50.0 kg. What is the acceleration of the wheelbarrow if the net force on it is 75 N?

A van with a mass of 1500 kg accelerates at a rate of 3.5 m/s^2 in the forward direction. What is the net force acting on the van? (*Hint:* Solve the acceleration formula for force.)

A bowling ball rolled with a force of 15 N accelerates at a rate of 3 m/sec^2; a second ball rolled with the same force accelerates 4 m/sec^2. What are the masses of the two balls?

A force of 250 N is applied to an object that accelerates at a rate of 5 m/sec^2. What is the mass of the object?

A shot-putter exerts an unbalanced force of 140 N on a shot, which gives it an acceleration of 19 m/s/s. What is the mass of the shot?