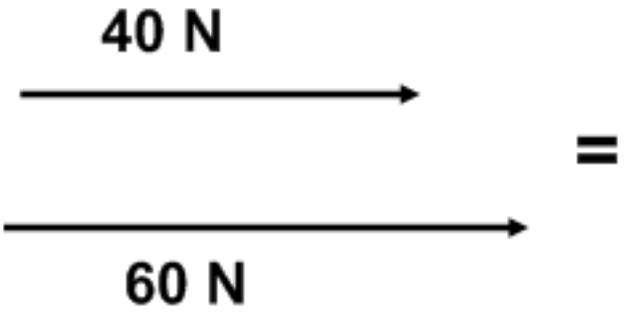
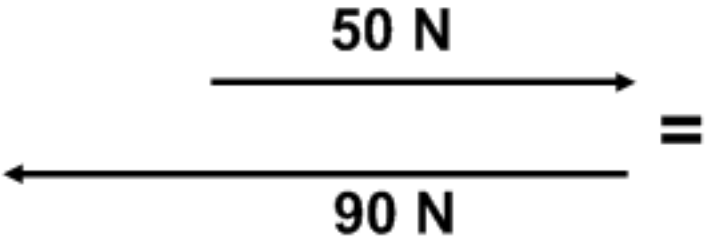
Finding Net Force:

If forces going the same direction, ...



If forces are going opposite directions, ...



What force is required to accelerate a 25 kg object at 3.5 m/s/s?

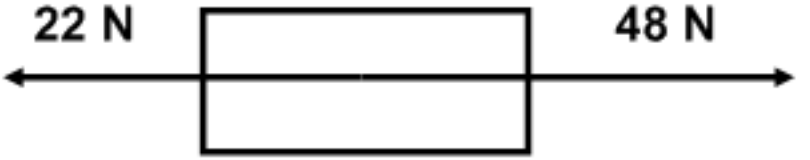
A force of 280 N is applied to a 20 kg object. Find the acceleration of the object.

A force of 500 N is applied to a 45 kg object. What is the rate of acceleration of the object?

A car has a mass of 2400 kg. How much does the car weigh?

Determine the mass of a 3000 N boulder.

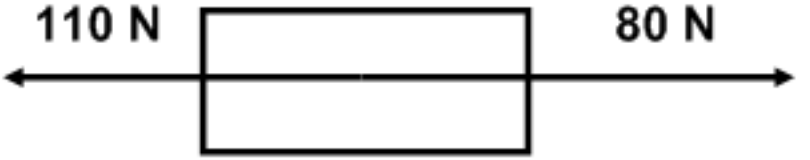
Find the unknown:



m = 13 kg

a = ?

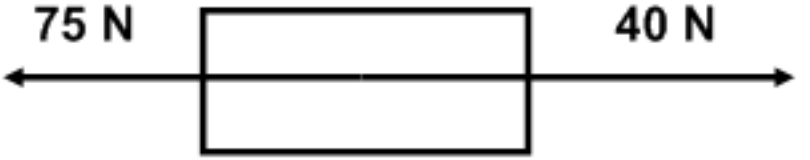
Find the unknown:



m = 5 kg

a = ?

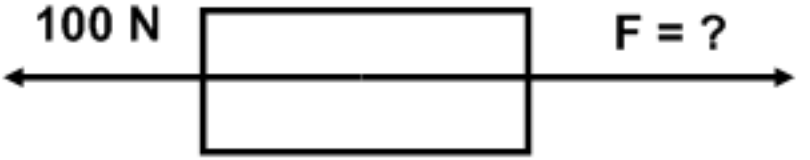
Find the unknown:



m = ?

a = 5 m/s/s Left

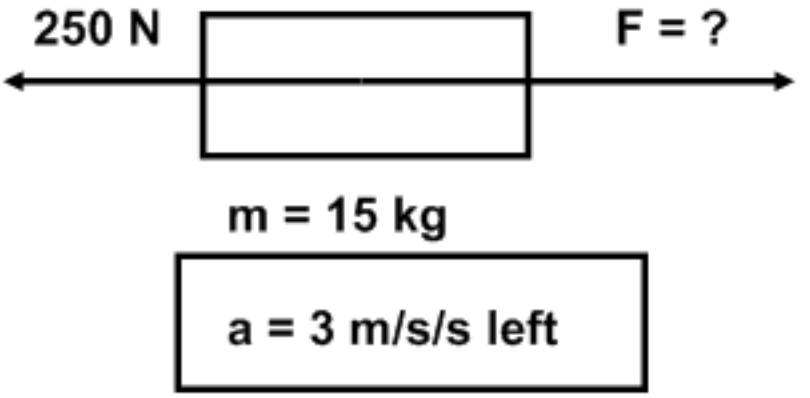
Find the unknown:



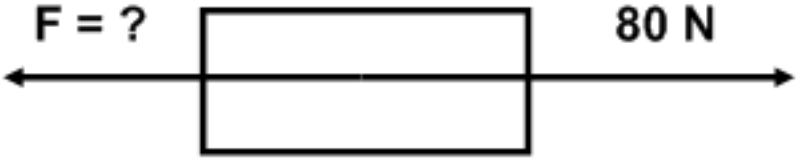
m = 20 kg

a = 3 m/s/s right

Find the unknown:



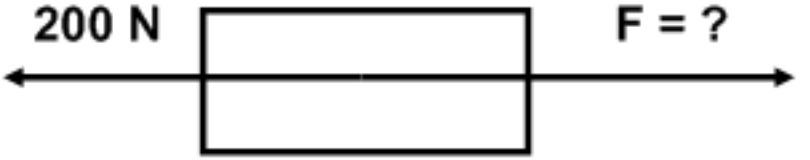
Find the unknown:



m = 10 kg

a = 3 m/s/s left

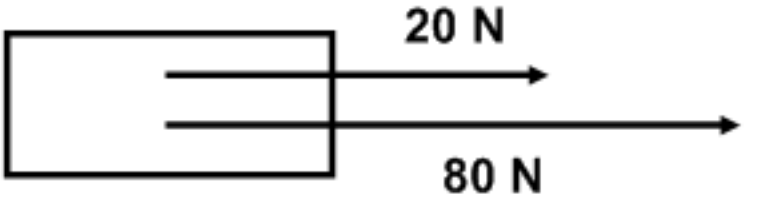
Find the unknown:



m = 20 kg

a = 10 m/s/s left

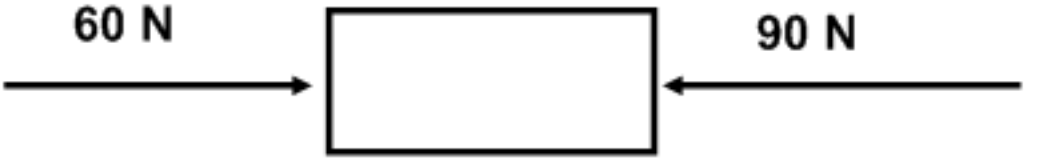
Find the unknown:



m = 20 kg

a = ?

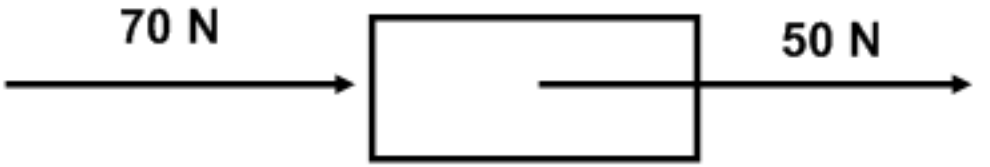
Find the unknown:



m = 10 kg

a = ?

Find the unknown:



m = 40 kg

a = ?

Match the following:

velocity

acceleration
(including gravity)

distance

mass

Force
(including weight)

time

Newtons(N)

meters(m)

seconds(s)

m/s/s

kilograms(kg)

m/s

Match the following:

Newton's 1st Law

Newton's 2nd Law

Newton's 3rd Law

Newton's Law of Universal Gravitation

Law that relates force, mass and acceleration in the equation F = ma

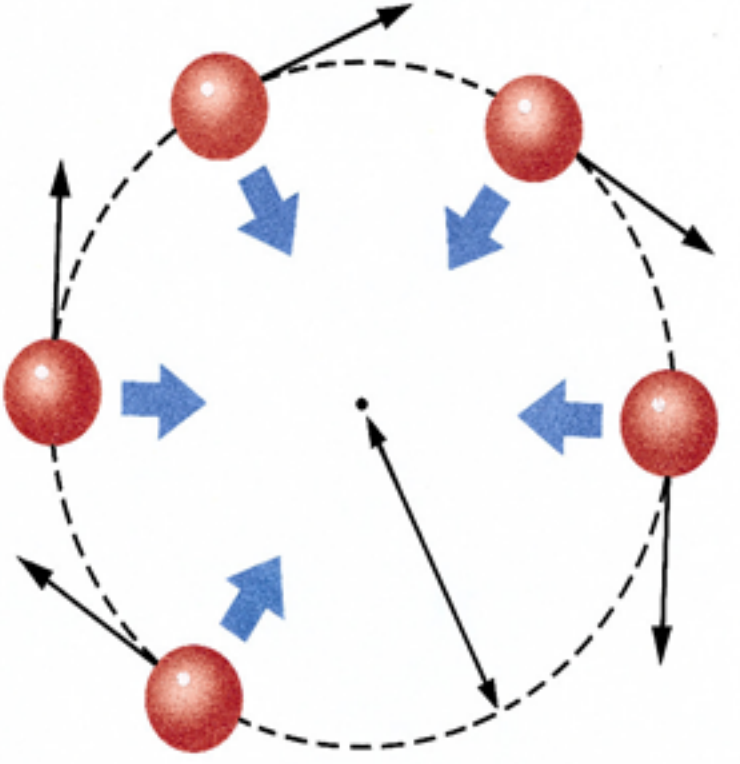
Law that states that any 2 objects have a force of attraction between them!!

Law that states that an object at rest will remain at rest and an object in motion will remain in motion unless acted on by some unbalanced force!

Law that states for every action, there is an equal but opposite reaction!!

This man is twirling a rubber stopper at a constant speed in a horizontal path around his head. Is the velocity constant? Is the object accelerating? What happens when he lets go?

http://www.practicalphysics.org/ImageLibrary/jpeg400/1083.jpg



http://www.dkimages.com/discover/previews/831/20114114.JPG