

Newton's Laws...revisited!

Do you remember?

1st Law



2nd Law



3rd Law



Free Body Diagrams (FBD)

Draw a FBD for each of the following:

a plane flying at uniform motion

a parked car

a car approaching a stop sign

a car pulling away from a red light

Vector Addition / Components

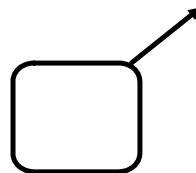
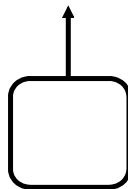
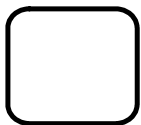
1. tug of war

2. 2 kids fight over a toy

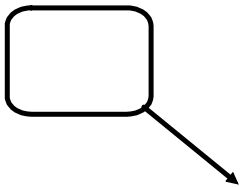
3. 3 kids fight over a toy

The Normal Force

Draw a FBD and find the normal force for each.



Draw a FBD, find the normal force and the acceleration.



Example...you're on your own here...!

A 25.0 kg crate is pulled by a force of 155N at 30.0° above the horizontal. The coefficient of friction is 0.200.

(a) Draw the FBD.

(b) Calculate the acceleration.