

5.11.20

Newton's Laws: Overview

Today's Objectives:

Learn each of Newton's 3 Laws

1st Law (Inertia) : Objects at rest, stay at rest.

Objects at CV stay at CV unless a net force acts on it.

↓
Unbalanced

2nd Law (Acceleration)

$$a = \frac{\Sigma F}{m}$$

ΣF : Net Force
 m : mass (kg)

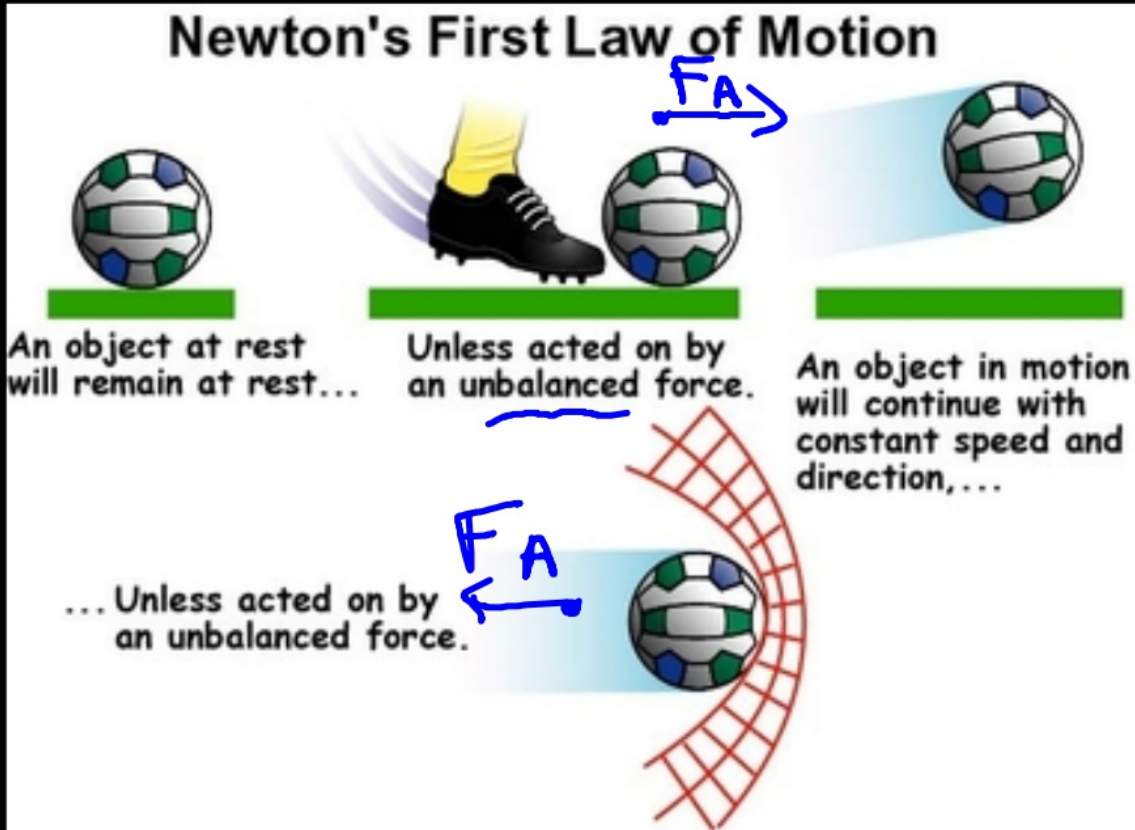
Acceleration
(m/s^2)

3rd Law (Reaction): Every action force has an equal and opposite reaction force.

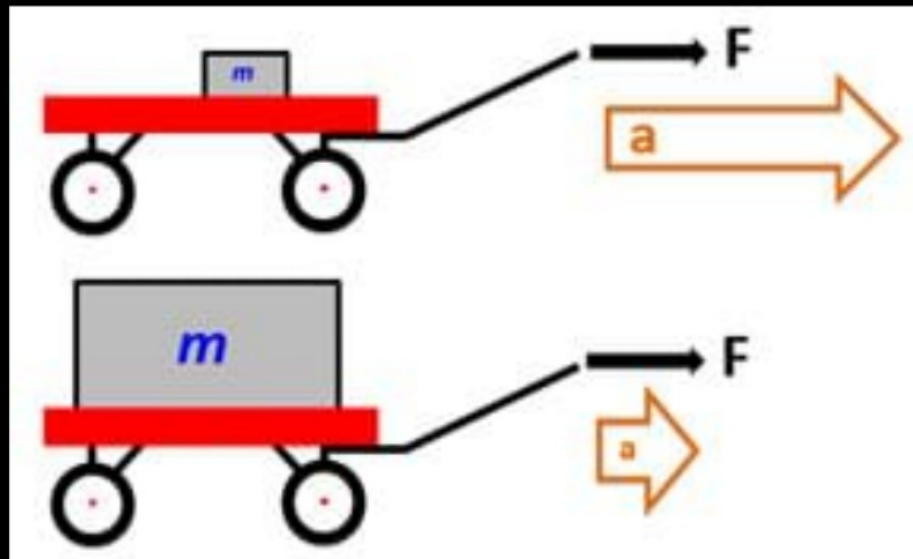
1st Law

Inertia (aka mass) = Resistance to Acceleration

Heavier Objects =
More Resistance



2nd Law



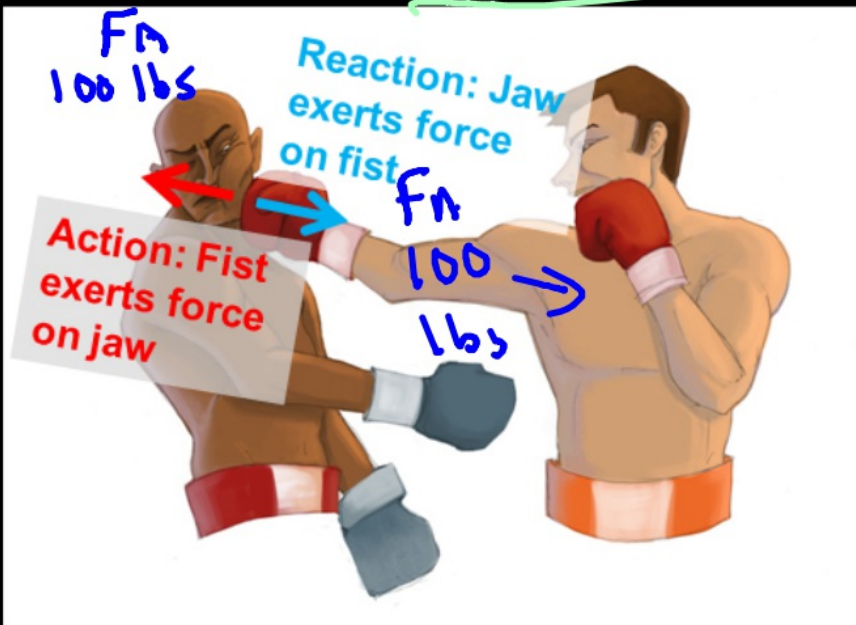
Net Force
↓
$$a = \frac{F}{m}$$

↑
Mass

Accel

3rd Law Action & Reaction

Forces have to be



the
Same!

No exceptions!

