

Force is the pushing or pulling of an object due to the interaction with another object.

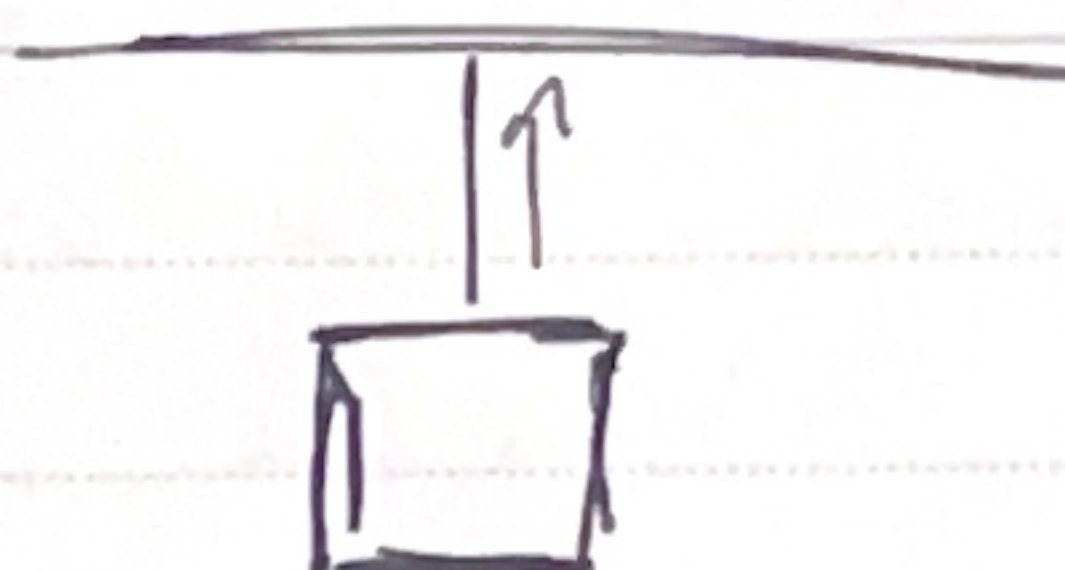
Force is usually measured in Newtons (N), which is the force required to accelerate an object 1 m/s^2 that weighs 1 kg .

Types

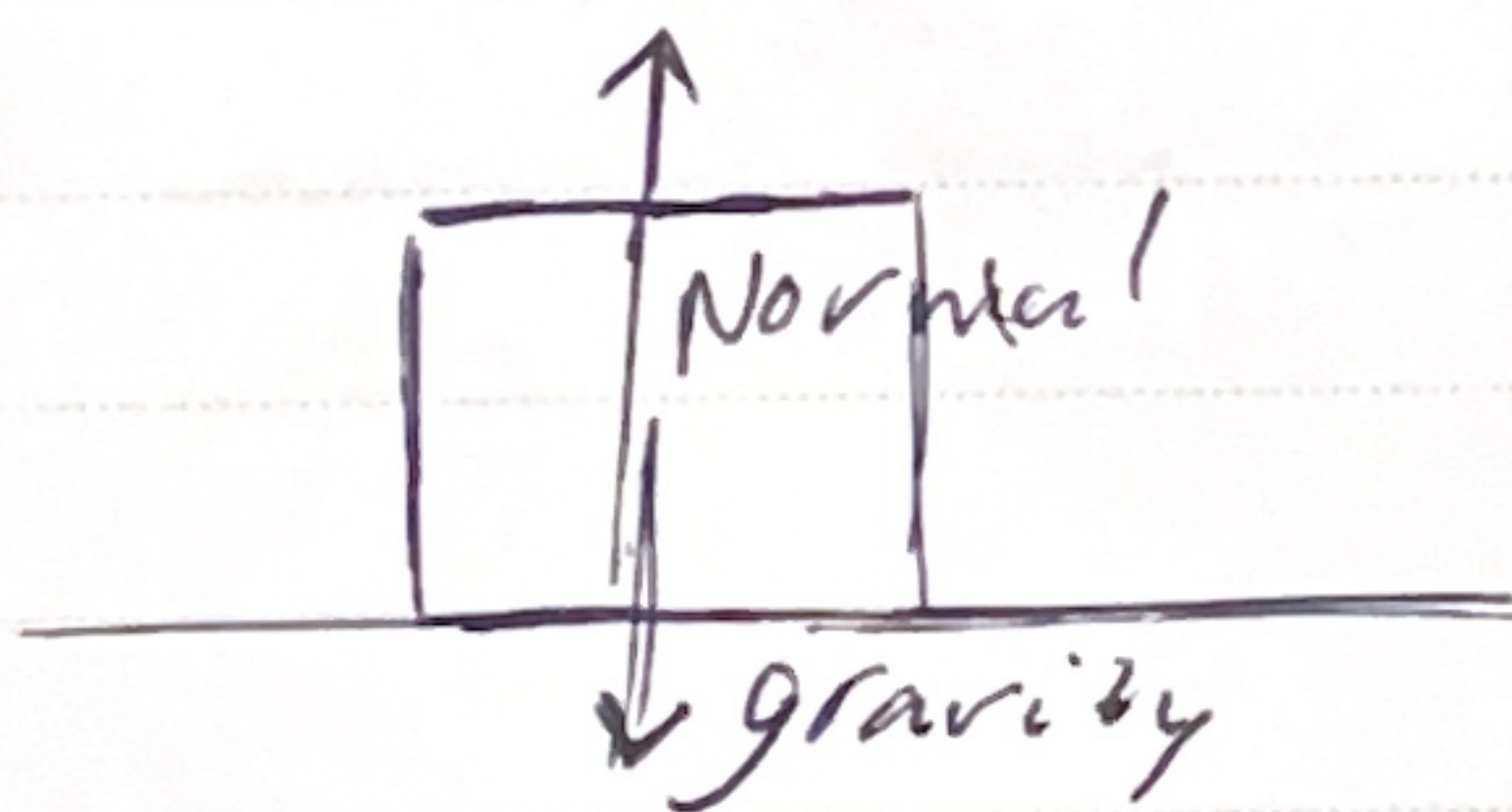
Frictional



Tension



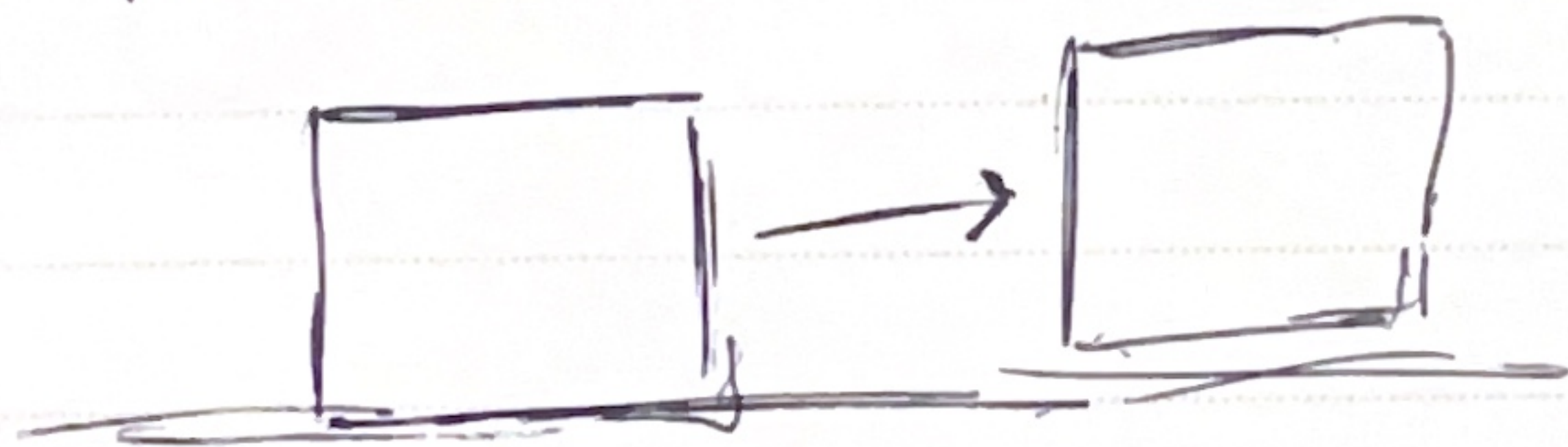
Normal force



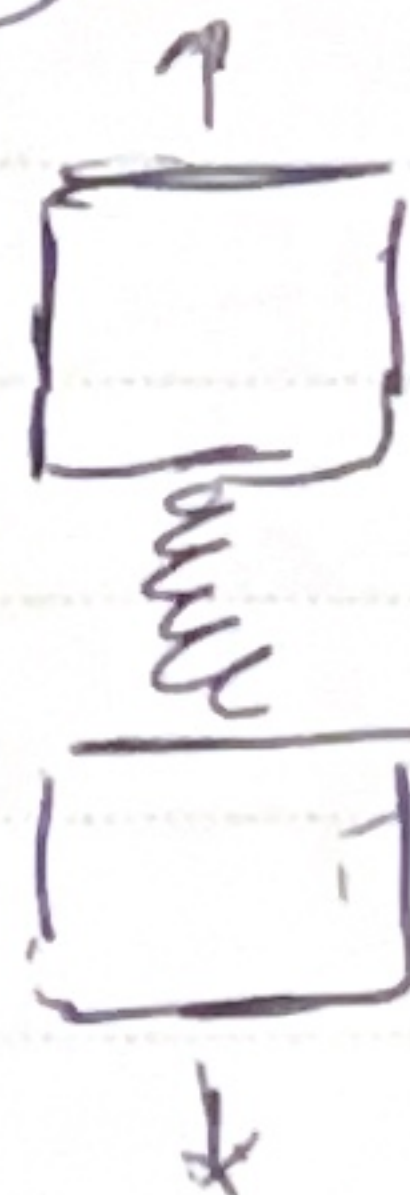
Air Resistance



Applied force

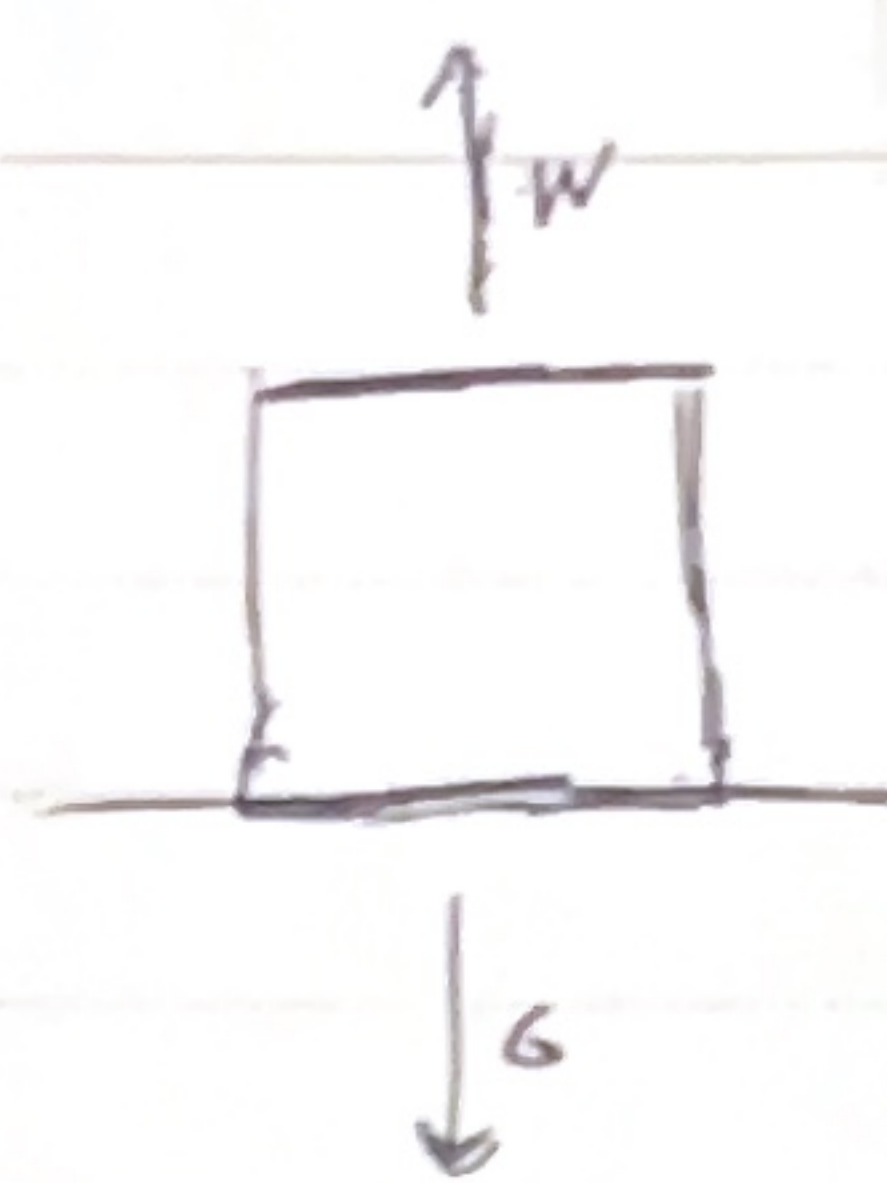


Spring Force



Gravitational





The ~~force~~ ^{System} to the left is "balanced" because the magnitude of the force exerted on the object are equilibrium, meaning that the object does not move.



The System to the left is "unbalanced" because the magnitudes of all the forces do not cancel, meaning the object moves to the right.

Mass is the amount of something within an object. Usually expressed using kilograms. The mass is independent of the location of the object.

Weight is the amount of gravitational force acted upon an object. Also referred in the "force of gravity" and is measured in newtons.

Friction is a resistive force produced through an object's movements.

Static: A force is applied but the object does not move.

Kinetic: A force is applied and the object moves as a result.