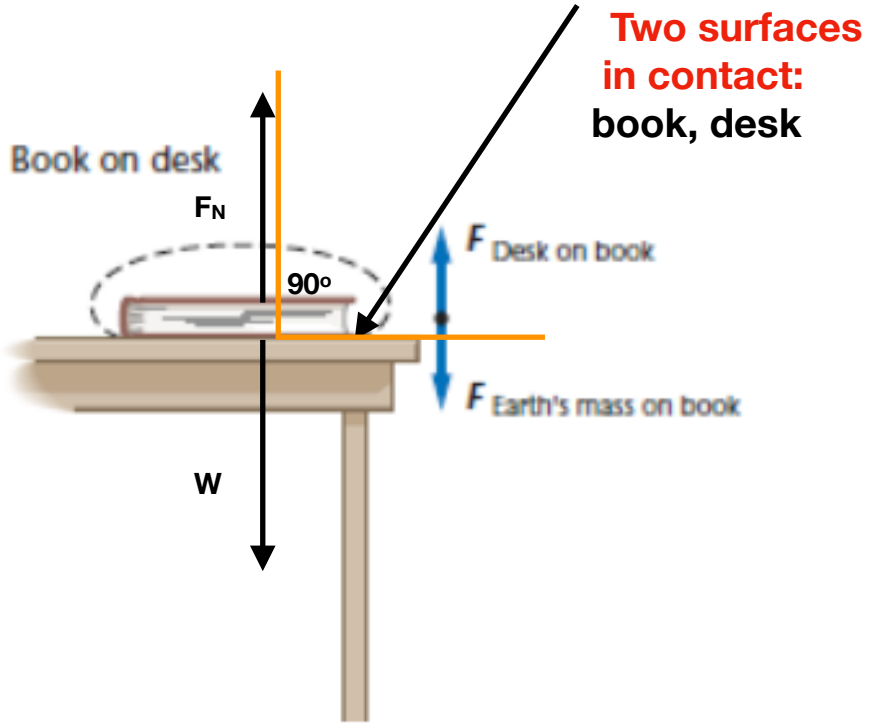
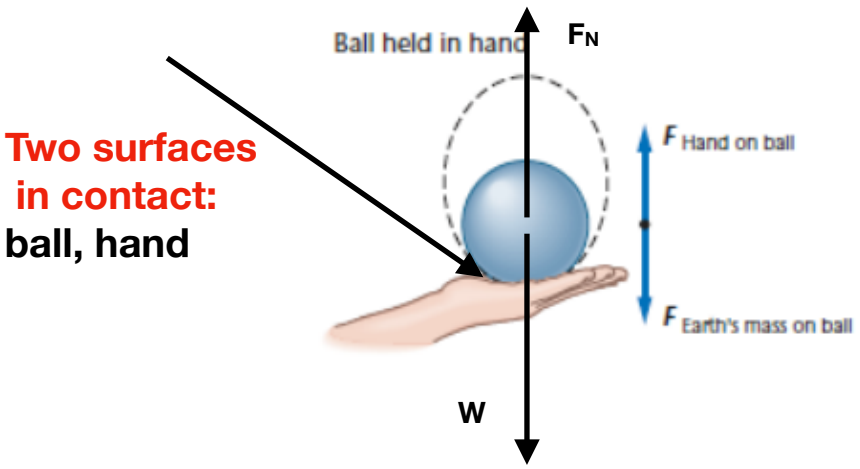


Force of Earth on book = Weight of the book (**W**) = m.g
Support force of desk on book = Normal force ($\mathbf{F_N}$), perpendicular to surface of contact;

- F_N = W (cancel each other)

The sum of the force (net force = F net) : F_N + W = 0 N

Equilibrium



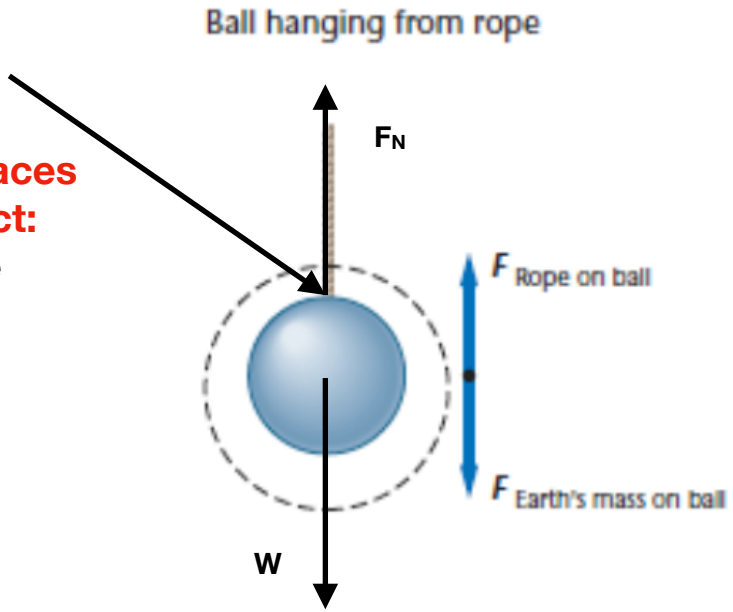
Force of Earth on ball = Weight of ball (**W**)

Support Force of hand on ball = Normal force ($\mathbf{F_N}$), perpendicular to surface of contact;

$$\mathbf{- F_N = W}$$ **(cancel each other)**

The sum of the force (net force = F net) : $F_N + W = 0$ N

The system is in **Equilibrium**.



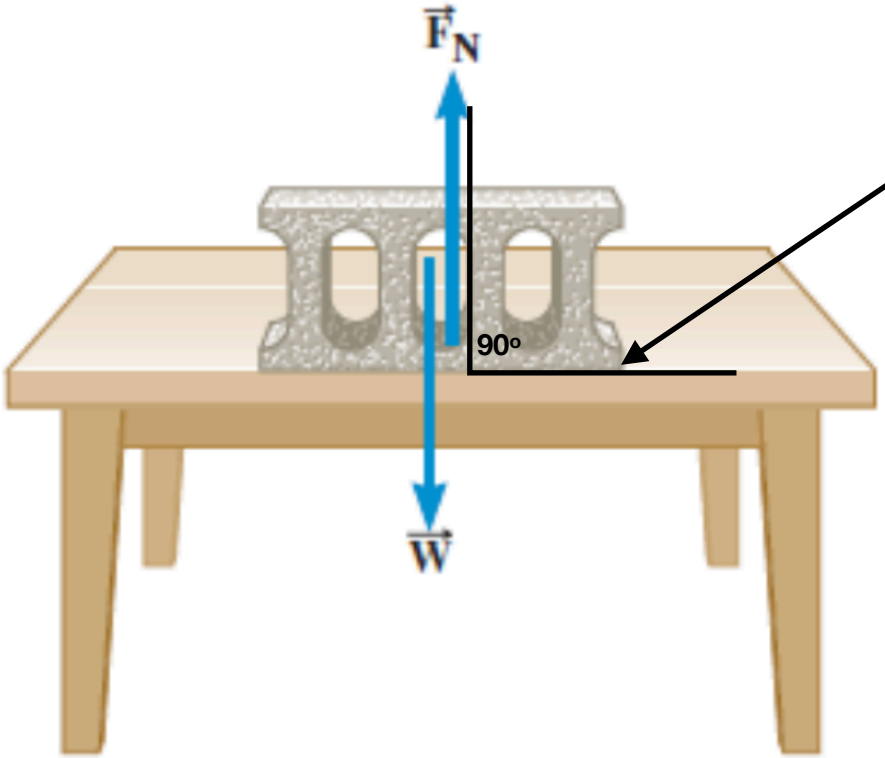
Two surfaces in contact:
ball, rope

Force of Earth on ball = Weight of ball (**W**)
Support Force of rope on ball = Normal / Tension force ($\mathbf{F_N}$), perpendicular to surface of contact;

$$\mathbf{- F_N = W}\ \textbf{(cancel each other)}$$

The sum of the force (net force = F net) : $F_N + W = 0$ N

The system is in **Equilibrium**.



Two surfaces in contact: block, table

The normal force is:

1) always opposite direction of the weight and 2) equal the weight and 3) perpendicular to the surface of contact (90° angle)