

Moments

$$\text{Moment} = F \times d$$

A moment is a turning force

d is the distance from the pivot

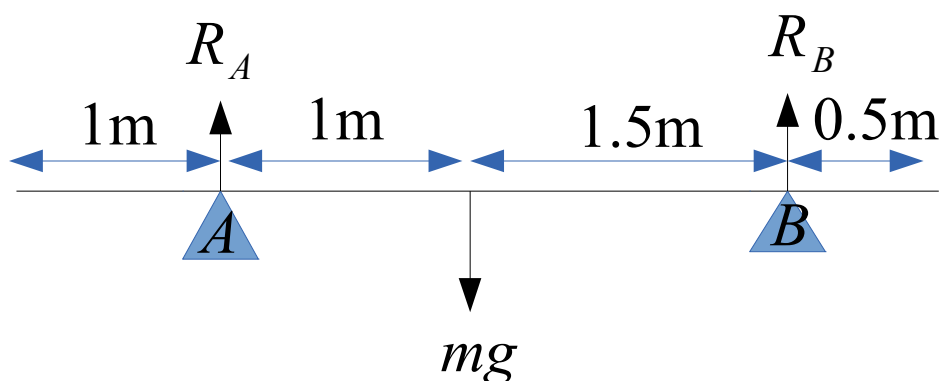
If a plank is uniform the weight acts from the centre

In equilibrium

Clockwise Moments = Anticlockwise Moments

Forces up = Forces down

In Equilibrium: uniform plank of mass 10kg



Taking moments about A

$$1 \times 10g = 2.5 \times R_B$$

$$R_B = 4g$$

Forces up = Forces down

$$R_A + R_B = 10g$$

$$R_A = 6g$$