Weight, Normal Reaction, & Tension

IB PHYSICS | FORCES

Types of Forces | Weight

Newton's 2nd Law: $F = m \times a$

Weight:

F_g →

m →

g →

Mass vs Weight

Mass

Metric Units	
Mass	
Weight	

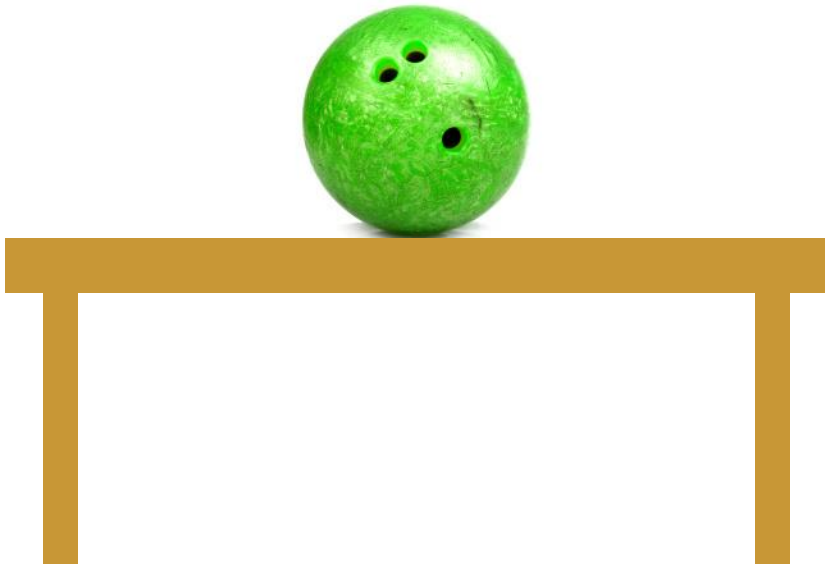
Weight

Types of Forces | Weight

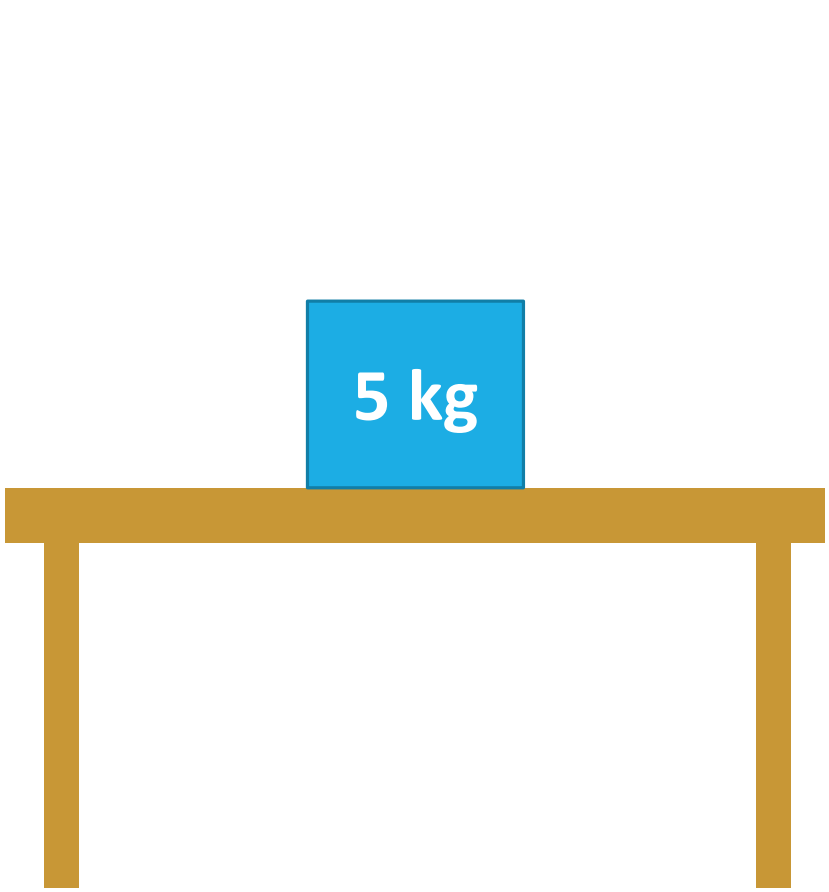
What is your mass in kilograms? (1 kg = 2.2 lbs)

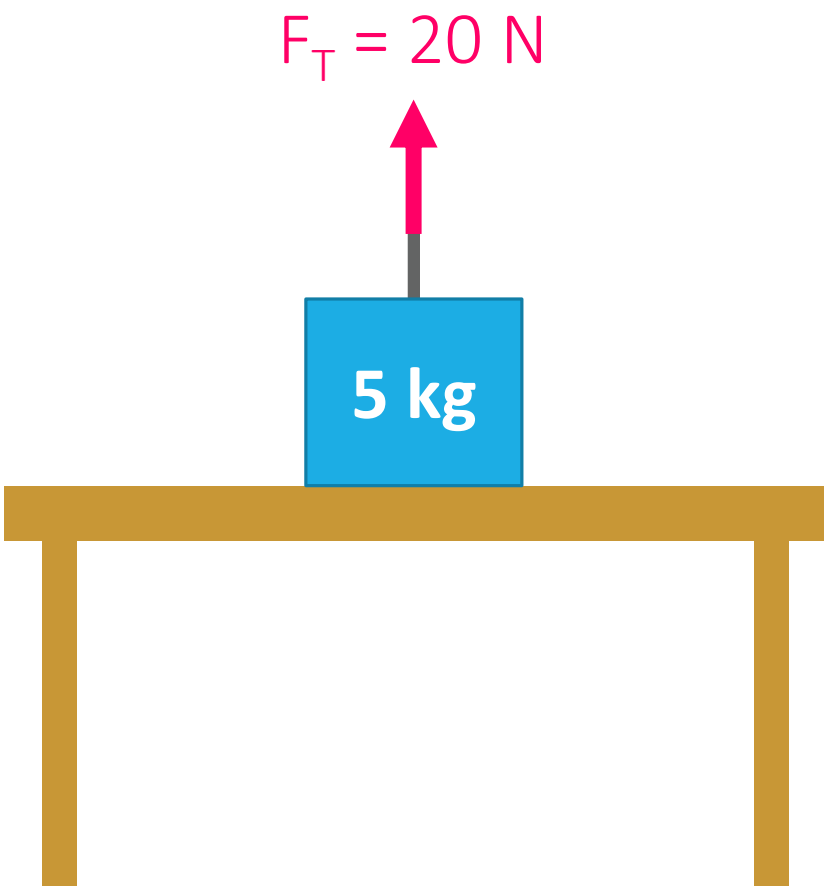
What is your weight in Newtons?

Types of Forces | Normal Reaction

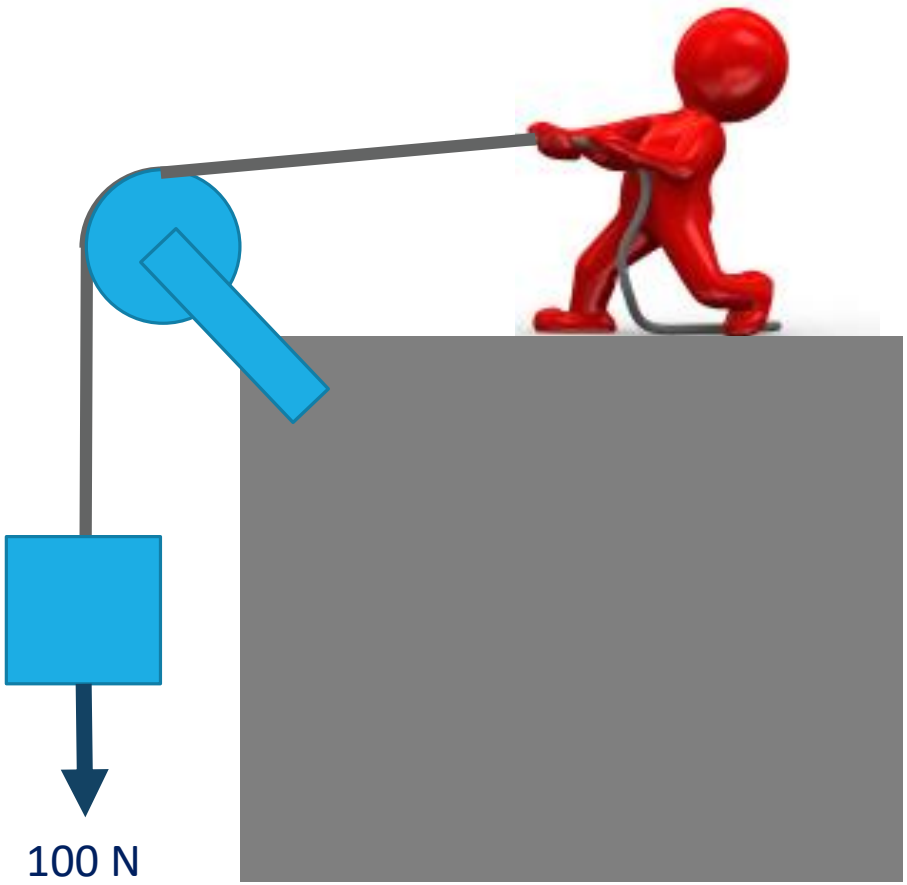


Normal Force Depends on Scenario





Types of Forces | Tension



Lesson Takeaways

- ❑ I can calculate the weight of an object
- ❑ I can describe the difference between mass and weight
- ❑ I can use Newton's third law to describe how to find the normal reaction force with force pairs
- ❑ I can use a diagram to identify the direction of tension force acting on an object