

Net Forces & Gravity

Forces that are working against or with another force can be shown mathematically:

1-When forces work together add the two forces:

$$12 \text{ N} + 8 \text{ N} = 20 \text{ N}$$

The number that is the result is the NET FORCE

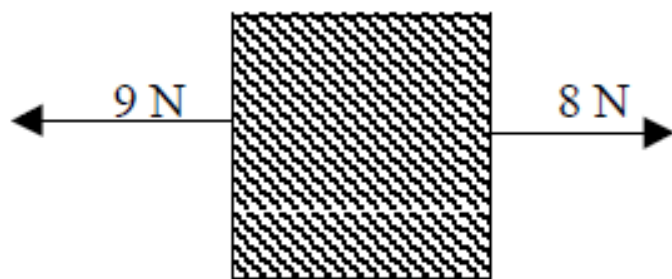
2- When forces are working against each other (towards or away) SUBTRACT the forces

12N to the right – 8 N to the left = 4 N right

The number that is the result is the NET FORCE

A)

1. Net force = _____
2. Draw the net force arrow below.
3. The forces are:
a. balanced b. unbalanced
4. The object:
a. accelerates b. does not accelerate



B)

1. Net force = _____
2. Draw the net force arrow below.
3. The forces are:
a. balanced b. unbalanced
4. The object:
a. accelerates b. does not accelerate



- **Gravity is the force of attraction between two objects with mass.**
- **The force of gravity depends on the mass of the object.**
- **The more mass, the more gravity**
- **The less mass, less gravity**

Example:

The force of gravity depends on the mass of the object.

- The sun has more mass than the moon, so gravity is stronger on the sun**

Weight is the measurement of the force of gravity.

Jupiter has more mass than the Earth. If you went to Jupiter, you would weigh 2 and half more than you do on Earth!