

NEWTON'S SECOND LAW

Use Newton's Second Law to solve these problems



A vehicle has an acceleration of 4 ms^{-2} and a mass of 500 kg.
Find the unbalanced force acting on it

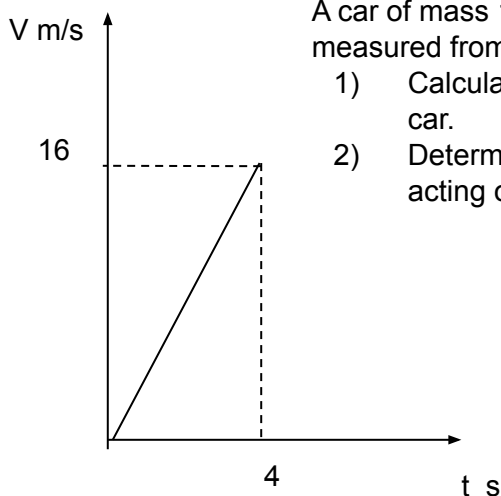
A boat has a mass 500 kg and an acceleration of 3 ms^{-2}
Find the unbalanced force acting on it.

A rocket has an acceleration of 6 ms^{-2} and a mass of 100 kg.
Find the unbalanced force acting on it.

A car has an acceleration of 2 ms^{-2} caused by an unbalanced force of 200 newtons.
Find the mass of the car.

A spaceship has an unbalanced force of 20 newtons acting on it causing an acceleration of 0.2 ms^{-2}
Find the mass of the spaceship.

An object accelerates at 3 ms^{-2} because it has an unbalanced force of 900 N acting on it. Find its mass.



A car of mass 1000 kg has its speed measured from rest.

- 1) Calculate the acceleration of the car.
- 2) Determine the unbalanced force acting on it.

A ship is travelling at a constant speed of 3 ms^{-1}
It has a mass of 3000 kg.
Find the unbalanced force acting on it.