Corbettmaths

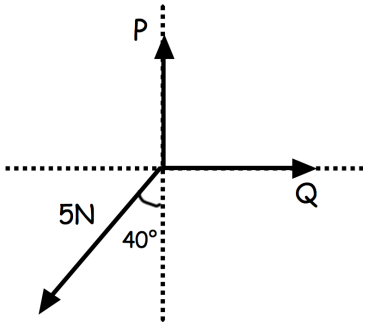
Equilibrium

Mechanics

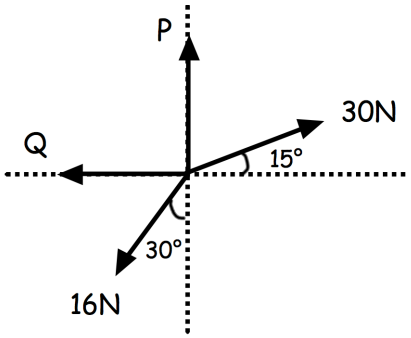
Video Tutorial

When two or more forces are applied to a particle and motion does not take place, then it is in equilibrium.
The resultant force is zero and the particle will remain stationary.

The diagram shows a particle in equilibrium.
Find P and Q

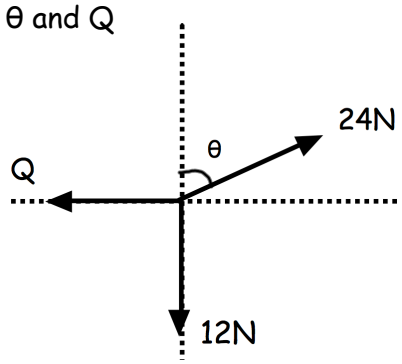


The diagram shows a particle in equilibrium.
Find P and Q

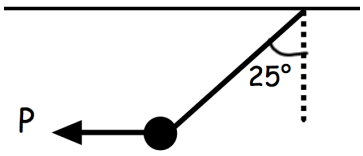


Equilibrium

The diagram shows a particle in equilibrium.
Find θ and Q

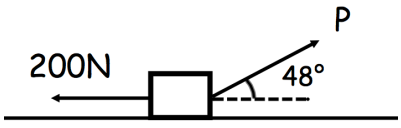


A ball of mass 50kg hangs from the ceiling with a light, inextensible wire.
The ball is pulled horizontally with force P N.



(a) Find the tension in the wire.
(b) Find the size of P

An object of mass 25kg is resting on a smooth horizontal surface.
A force of 200N is applied, as well as a force of P Newtons at an angle of 48 degrees to the horizontal.



(a) Find P
(b) Find the normal reaction