Answer on Question #43580, Physics, Other

A force of 10n acts upon a body of mass 2 kg .calculate the acceleration?

Solution:

Given:

F = 10 N,

m = 2 kg

a = ?

The magnitude of force is equated to the product of the mass times the acceleration.

$$F = ma$$

Thus, the acceleration is

$$a = \frac{F}{m} = \frac{10}{2} = 5\ \mathrm{m/s^2}$$

Answer: $a = 5\frac{\mathrm{m}}{\mathrm{s^2}}$