

A force acts on a body for 0.5s changing its momentum from 16kgms-1 to 21kgms-1. Calculate the magnitude of the force.

Solution

$$p_1 = 16kg \frac{m}{s}$$

$$p_2 = 21kg \frac{m}{s}$$

$$t = 0.5s$$

$$F = \frac{p_1 - p_2}{t} = 10N$$

Answer:

$$**F=10N**$$