Home Assignment

1) A 5kg body collides with a 20kg body & exerts 20N force on it. so force exerted by 20kg body on 5kg body is

(b) 20N

2) A man of mass 50kg is pulling (being suspended from it) a light rope suspended from a roof. By what force the rope is pulling the roof? 50kg-f or 500N

~~wt~~ mg of man = mg = 50kg

tension ~~of~~ or string = 50kg

mass ~~weight~~ of body (man) = m = 50kg

acceleration due to gravity = g = 9.8 ms^{-1}

F on roof = ma = mg = 50 × 9.8 =

= 490N

3) A man of mass 50kg is pulling (being suspended from it) a rope of mass 5kg is suspended from a roof. By what force the rope

is pulling the roof?

mass of man = 50kg
mass of rope = 5kg
total mass = 55kg
acceleration due to gravity = a = g = 9.8 m/s²

F applied on roof = ma = mg = 55 × 9.8
= 539 N

=x=