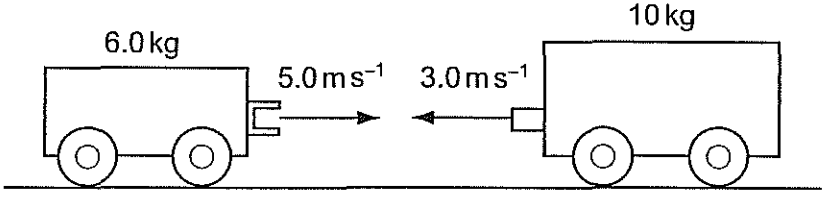
6 A trolley of mass 6.0 kg travelling at a speed of 5.0 m s^{-1} collides head-on and locks together with another trolley of mass 10 kg which is travelling in the opposite direction at a speed of 3.0 m s^{-1}. The collision lasts for 0.20 s.



What is the total momentum of the two trolleys before the collision and the average force acting on each trolley during this collision?

	total momentum before collision / kg m s^{-1}	average force on each trolley / N
A	0	300
B	60	150
C	0	150
D	60	300