2.	Particle A of mass $2m$ and particle B of mass km , where k is a positive constant, are moving towards each other in opposite directions along the same straight line on a smooth horizontal plane. The particles collide directly. Immediately before the collision the speed of A is u and the speed of B is u and the speed of u is u in u and the speed of u is u and the speed of u is u in u in u and the speed of u is u in
	(a) Show that $k < 1$
	(6)
	(b) Find, in terms of <i>m</i> and <i>u</i> , the magnitude of the impulse exerted on <i>B</i> by <i>A</i> in the collision.
	(3)

