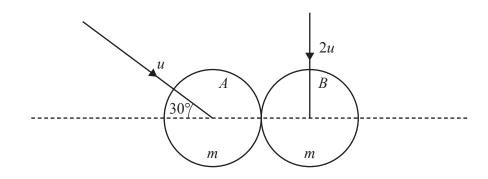
4



Two identical smooth uniform spheres A and B each have mass m. The two spheres are moving on a smooth horizontal surface when they collide with speeds u and 2u respectively. Immediately before the collision, A's direction of motion makes an angle of  $30^{\circ}$  with the line of centres, and B's direction of motion is perpendicular to the line of centres (see diagram). After the collision, A and B are moving in the same direction. The coefficient of restitution between the spheres is e.

F11	and the value of $e$ .
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