

- 5** A 20 g object travelling to the right at  $8.0 \text{ m s}^{-1}$  collides head-on with a 10 g object travelling to the left at  $7.0 \text{ m s}^{-1}$ .

Determine the loss in kinetic energy for both the 20 g and 10 g objects during the collision if the collision was perfectly inelastic.

- A** 3.0 kJ                      **B** 0.75 kJ                      **C** 3.0 J                      **D** 0.75 J