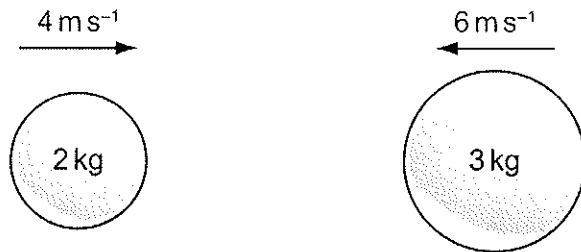6 The diagram shows two spheres of masses 2 kg and 3 kg moving at constant speed along a straight line towards one another.

$$4\,\mathrm{m\,s^{-1}}$$ →

$$6\,\mathrm{m\,s^{-1}}$$ ←

(2 kg)   (3 kg)

The speeds of the spheres are $4\,\mathrm{m\,s^{-1}}$ and $6\,\mathrm{m\,s^{-1}}$ respectively.

The spheres collide elastically.

Which statement explains why the spheres **cannot** come to rest at the same time?

A The impulses during the collision are not equal and opposite.

B The masses of the two spheres are not equal.

C The momenta of the spheres are not equal and opposite.

D The speeds of the spheres are not equal.