

- 6** A sphere X of mass 2.0 kg makes a head-on collision with sphere Y of mass 3.0 kg. The two spheres separate after the collision.

What is the ratio of $\frac{\text{change in speed of X}}{\text{change in speed of Y}}$?

A $\frac{4}{9}$

B $\frac{2}{3}$

C 1

D $\frac{3}{2}$