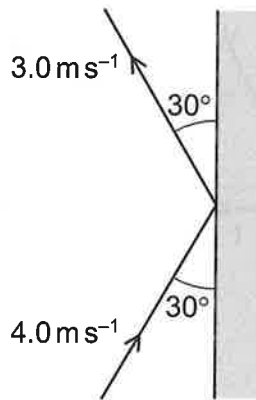2 A ball of mass 1.0 kg moving at 4.0 m s^{-1} rebounds from a wall at 3.0 m s^{-1}, as shown.

What is the component of the change in momentum of the ball **perpendicular** to the wall?

A 0.5 kg m s^{-1} B 1.0 kg m s^{-1} C 3.5 kg m s^{-1} D 7.0 kg m s^{-1}