

**6** A ball of mass  $m$  falls vertically and hits a hard surface.

Its speed on hitting the surface is  $v_1$ .

It rebounds vertically upwards with speed  $v_2$ .

What is the change in momentum of the ball?

**A**  $mv_1$

**B**  $mv_2$

**C**  $m(v_1 + v_2)$

**D**  $m(v_2 - v_1)$