

- 8 The momentum of a car of mass  $m$  increases from  $p_1$  to  $p_2$ .

What is the increase in the kinetic energy of the car?

**A**  $\frac{(p_2^2 - p_1^2)}{2m}$

**B**  $\frac{(p_2 - p_1)^2}{2m}$

**C**  $\frac{p_2 - p_1}{2m}$

**D**  $\frac{p_1 - p_2}{2m}$

- 9 Two similar spheres, each of mass  $m$  and travelling with speed  $v$ , are moving towards each other