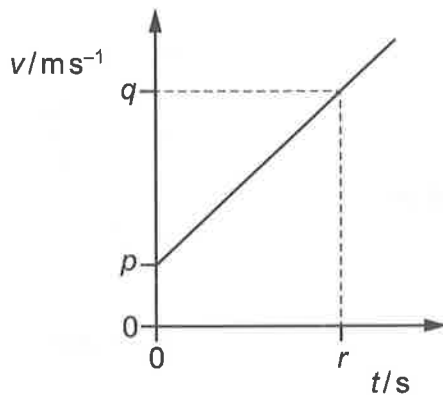2 The diagram shows how the velocity v of a car travelling in a straight line changes with time t.

Which expression gives the displacement of the car between time $t = 0$ and $t = r$?

A $\frac{1}{2}qr$

B $\frac{1}{2}(q - p)r$

C $\frac{1}{2}(q - p)r + qr$

D $\frac{1}{2}(p + q)r$

3   An arrow flies through the air and arrives with kinetic energy E at a target. The arrow is stopped