Corbettmaths

$v^2 = u^2 + 2as$

Mechanics

Video Tutorial

v - final velocity (m/s)
u - initial velocity (m/s)
a - acceleration (m/s^2)
s - displacement (m)

A particle is moving in a straight line with acceleration $2.4 m/s^2$
The particle passes through O with a speed of 8m/s and travels towards A, where OA = 90m

Work out the speed of the particle as it passes through A.

A car moves with constant acceleration of $1.8 m/s^2$ in a straight line from A to B.
At A, the speed of the car is 5m/s
At B, the speed of the car is 20m/s

Work out the distance AB.