3. A golfer strikes a golf ball, which then moves off at an angle to the ground. The ball follows the path shown.
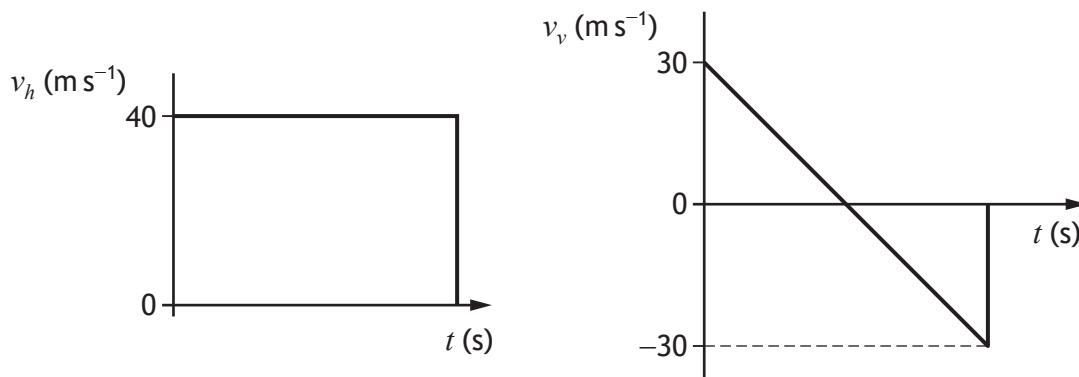

The graphs show how the horizontal component of the velocity v_h and the vertical component of the velocity v_v of the ball vary with time t.

The speed of the ball just before it hits the ground is

A $10\,\mathrm{m\,s^{-1}}$

B $30\,\mathrm{m\,s^{-1}}$

C $40\,\mathrm{m\,s^{-1}}$

D $50\,\mathrm{m\,s^{-1}}$

E $70\,\mathrm{m\,s^{-1}}$.