

7 A solid object of mass 1.0 kg falls vertically downwards in a vacuum.

When the speed of the object is 60 m s^{-1} , an additional constant force of 50 N suddenly starts to act vertically upwards on the object.

What is the speed of the object 2.0 s after the additional force starts to act?

A 20 m s^{-1}

B 40 m s^{-1}

C 80 m s^{-1}

D 100 m s^{-1}