

- 2 An object of mass 3.0 kg is falling vertically from rest. Air resistance R , in newtons, is given by the empirical equation

$$R = 0.60 v$$

where v is the velocity in metres per second.

What is the maximum velocity of the object and what is the acceleration of the object when its velocity is 12 m s^{-1} ?

	maximum velocity / m s^{-1}	acceleration when $v = 12 \text{ m s}^{-1}$ / m s^{-2}
A	16	2.4
B	16	7.4
C	49	2.4
D	49	7.4