

- 4 A man stands on the edge of a cliff. He throws a stone upwards with a velocity of 19.6 m s^{-1} at time $t = 0$. The stone reaches the top of its trajectory after 2.00 s and then falls towards the bottom of the cliff. Air resistance is negligible.

Which row shows the correct velocity v and acceleration a of the stone at different times?

	t/s	$v/\text{m s}^{-1}$	$a/\text{m s}^{-2}$
A	1.00	9.81	9.81
B	2.00	0	0
C	3.00	9.81	-9.81
D	5.00	-29.4	-9.81

- 5 An object is projected with velocity 40 m s^{-1} at an angle of 45° to the horizontal. Air resistance is