

8 A mass is placed on a frictionless slope inclined at  $30^\circ$  to the horizontal. The mass is then released.

What is its acceleration down the slope?

A  $4.9 \text{ ms}^{-2}$

B  $5.7 \text{ ms}^{-2}$

C  $8.5 \text{ ms}^{-2}$

D  $9.8 \text{ ms}^{-2}$

9 A parachutist falls vertically from rest at time  $t = 0$  from a hot air balloon. She falls for some