

- 6** A trolley of mass 0.50 kg moves with a certain acceleration down a runway which is inclined to the horizontal at 15° . If the angle of inclination is increased to 20° , the acceleration of the trolley would be doubled. Find the frictional force, assumed to be the same in both cases, acting on the trolley.

A 0.12 N

B 0.41 N

C 0.86 N

D 4.9 N

- 7** When a ball is thrown vertically upwards with an initial speed of 11.0 m s^{-1} , it reaches a maximum height of 6.2 m . The acceleration of the ball is assumed to be constant. Find the acceleration of the ball.