

3 An astronaut is standing on horizontal ground on the Moon. The astronaut hits a golf ball. The golf ball leaves the ground with an initial speed of 15 ms^{-1} at an angle of 40° to the horizontal. The ball lands some time later.

The acceleration of free fall on the Moon is 1.62 ms^{-2} .

What is the time between the astronaut hitting the ball and the ball landing on the ground?

A 4.3 s

B 6.0 s

C 11.9 s

D 14.2 s

4 A smooth cylinder of weight 14 N rests in the angle between two smooth sloping planes X and Y.