

- 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 m s^{-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 m s^{-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 planes XY and YX .