

- 6 In an experiment to determine the acceleration of free fall g , a ball-bearing is held by an electromagnet. When the current to the electromagnet is switched off, a clock starts and the ball-bearing falls. After falling a distance h , the ball-bearing strikes a switch to stop the clock which measures the time t of the fall.

Which expression can be used to calculate the value of g ?

A $\frac{ht^2}{2}$

B $\frac{th^2}{2}$

C $\sqrt{\frac{2t}{h^2}}$

D $\frac{2h}{t^2}$

- 7 The diagram shows a velocity-time graph for a mass moving up and down on the end of a spring.