

- 7 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.

If systematic errors cause t and h to be measured incorrectly, which error **must** cause g to appear greater than 9.81 m s^{-2} ?

- A h measured as being **smaller** than it actually is and t is measured correctly
- B h measured as being **smaller** than it actually is and t measured as being **larger** than it actually is
- C h measured as being **larger** than it actually is and t measured as being **larger** than it actually is
- D h is measured correctly and t measured as being **smaller** than it actually is

- 8 A stone is thrown horizontally from the top of a cliff. Air resistance is negligible.