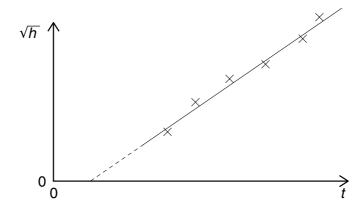
4 A student measures the time t for a ball to fall from rest through a vertical distance h. Knowing that the equation  $h = \frac{1}{2} gt^2$  applies, the student plots the graph shown.



Which of the following is an explanation for the intercept on the t axis?

- **A** Air resistance has not been taken into account for larger values of *h*.
- **B** There is a constant delay between starting the timer and releasing the ball.
- **C** There is an error in the timer that consistently makes it run fast.
- **D** The student should have plotted h against  $t^2$ .
- 5 The power loss *P* in a resistor is calculated using the formula  $P = V^2/R$ .

The uncertainty in the potential difference V is 3% and the uncertainty in the resistance R is 2%.

What is the uncertainty in *P*?

- **A** 4%
- **B** 7%
- **C** 8%
- **D** 11%