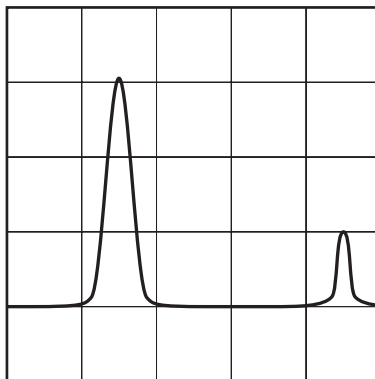


- 4 A cathode-ray oscilloscope (c.r.o.) displays a waveform as shown.



The time interval between two adjacent peaks of the waveform is 0.006 s.

What is the time-base setting of the c.r.o.?

- A $2\ \mu\text{s}/\text{division}$
 - B $20\ \mu\text{s}/\text{division}$
 - C $2\ \text{ms}/\text{division}$
 - D $3\ \text{ms}/\text{division}$
- 5 A value for the acceleration of free fall on Earth is given as $(10 \pm 2)\text{ms}^{-2}$.

Which statement is correct?

- A The value is accurate but not precise.
 - B The value is both precise and accurate.
 - C The value is neither precise nor accurate.
 - D The value is precise but not accurate.
- 6 An experiment to determine atmospheric pressure P uses the equation $P = \rho gh$ where

$$\rho = (13\,600 \pm 100)\text{kg m}^{-3},$$

$$g = (9.81 \pm 0.02)\text{ms}^{-2},$$

$$h = (0.762 \pm 0.005)\text{m}.$$

What is the value of P , with its uncertainty, when stated to an appropriate number of significant figures?

- A $(1.0166 \pm 0.0162) \times 10^5\text{Pa}$
- B $(1.017 \pm 0.016) \times 10^5\text{Pa}$
- C $(1.017 \pm 1.6\%) \times 10^5\text{Pa}$
- D $(1.02 \pm 0.02) \times 10^5\text{Pa}$