5 The density of the material of a rectangular block is determined by measuring the mass and linear dimensions of the block. The table shows the results obtained, together with their uncertainties.

> $(25.0 \pm 0.1)g$ mass (5.00 ± 0.01) cm length breadth (2.00 ± 0.01) cm

height (1.00 ± 0.01) cm

The density is calculated to be 2.50 g cm⁻³.

What is the uncertainty in this result?

- **A** $\pm 0.01 \,\mathrm{g}\,\mathrm{cm}^{-3}$
- **B** $\pm 0.02 \,\mathrm{g\,cm^{-3}}$ **C** $\pm 0.05 \,\mathrm{g\,cm^{-3}}$ **D** $\pm 0.13 \,\mathrm{g\,cm^{-3}}$
- 6 A football is dropped from the top of a tall building.

Which acceleration-time graph best represents the motion of the football through the air?







