

- 1 Concrete has a density of 2400 kg m^{-3} .

Which mass of concrete fills a rectangular space of dimensions $8.0 \text{ cm} \times 90 \text{ cm} \times 110 \text{ cm}$?

- A** 79 kg **B** 190 kg **C** 790 kg **D** 1900 kg

- 2 The speed v of sound in a gas is given by the equation

$$v = \sqrt{\frac{\gamma P}{\rho}}$$

where P is the pressure of the gas, ρ is its density and γ is a constant.

What are the SI base units of γ ?

- A** $\text{m}^{-1} \text{s}$ **B** $\text{m}^3 \text{s}^{-3}$ **C** $\text{m}^{-4} \text{s}^{-4}$ **D** no units

- 3 The motion of an object moving from rest with a constant acceleration a may be represented by the equation shown.

$$v^2 = 2as$$

Which row describes the quantities represented by the symbols v and s ?

	v	s
A	scalar	scalar
B	scalar	vector
C	vector	scalar
D	vector	vector