3 The relation between the velocity v of waves in the sea with its wavelength λ, the surface tension γ and density ρ of sea water is given by:

$$v = k\sqrt{\frac{\gamma}{\lambda\rho}}$$

where k = constant of proportionality.

If γ = (4.30 $\pm$ 0.05) N m^{-1}, ρ = (1450 $\pm$ 20) kg m^{-3} and the percentage uncertainty in λ is 5 %, what is the percentage uncertainty in the velocity of the waves?

A 2% **B** 3% **C** 4% **D** 8%