9 A student attempts to find the density ρ of aluminium by taking measurements of a rectangular sheet.

mass $m = 51.6 \pm 0.1\,\text{g}$

length $l = 100.0 \pm 0.1\,\text{cm}$

width $w = 10.0 \pm 0.1\,\text{cm}$

thickness $t = 0.20 \pm 0.01\,\text{mm}$

He uses the equation $\rho = \dfrac{m}{wlt}$ to calculate the density.

What is the calculated value of density with its uncertainty?

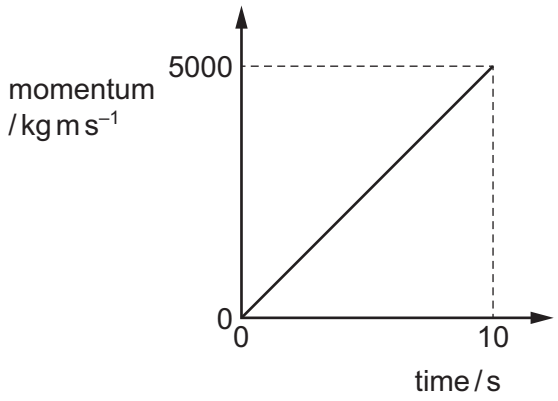
A $0.26 \pm 0.01\,\text{g cm}^{-3}$

B $0.26 \pm 0.02\,\text{g cm}^{-3}$

C $2.6 \pm 0.1\,\text{g cm}^{-3}$

D $2.6 \pm 0.2\,\text{g cm}^{-3}$

10 The graph shows how the momentum of a motorcycle changes with time.



What is the resultant force on the motorcycle?

A 500 N **B** 5000 N **C** 25 000 N **D** 50 000 N