

3 A student calculates the density of a solid steel cube in an experiment.

The measured mass is $975\text{ g} \pm 10\text{ g}$ and the measured length of side is $50\text{ mm} \pm 1\text{ mm}$.

What is the density of the steel?

A $7.8\text{ g cm}^{-3} \pm 3.0\%$

B $7.8\text{ g cm}^{-3} \pm 7.0\%$

C $7.8\text{ g cm}^{-3} \pm 11\%$

D $7.8\text{ g cm}^{-3} \pm 13\%$