

- 4 A steel wire is stretched in an experiment to determine the Young modulus for steel.

The uncertainties in the measurements are given below.

measurement	uncertainty
load on wire	$\pm 2\%$
length of wire	$\pm 0.2\%$
diameter of wire	$\pm 1.5\%$
extension	$\pm 1\%$

What is the percentage uncertainty in the Young modulus?

- A 1.3% B 1.8% C 4.7% D 6.2%

- 5 The acceleration of free fall on the Moon is one-sixth of that on Earth.

On Earth it takes time t for a stone to fall from rest a distance of 2 m.

What is the time taken for a stone to fall from rest a distance of 2 m on the Moon?

- A $6t$ B $\frac{t}{6}$ C $t\sqrt{6}$ D $\frac{t}{\sqrt{6}}$

Space for working