

**1** What is the best estimate of the wavelength of green light?

- A** 260 nm      **B** 540 nm      **C** 780 nm      **D** 920 nm

**2** In an electric circuit, an ammeter reads  $2\ \mu\text{A}$ .

In a second circuit, the ammeter reads 1 mA.

How many times larger is the current in the second circuit compared with the current in the first circuit?

- A** 500      **B** 5000      **C** 500 000      **D** 5 000 000

**3** A set of repeated measurements is made of a fixed quantity. An average of these measurements is calculated.

What is the effect of averaging on the random error and the systematic error in the measurements?

- A** Random error and systematic error are both reduced.  
**B** Random error and systematic error are both unaffected.  
**C** Random error is reduced but systematic error is unaffected.  
**D** Random error is unaffected but systematic error is reduced.