4   A micrometer is used to measure the diameters of two cylinders.

diameter of first cylinder = 12.78 ± 0.02 mm

diameter of second cylinder = 16.24 ± 0.03 mm

The difference in the diameters is calculated.

What is the uncertainty in this difference?

A   ±0.01 mm   **B**   ±0.02 mm   **C**   ±0.03 mm   **D**   ±0.05 mm

5   The speedometer in a car consists of a pointer which rotates. The pointer is situated several millimetres from a calibrated scale.

What could cause a random error in the driver's measurement of the car's speed?

A   The car's speed is affected by the wind direction.

B   The driver's eye is not always in the same position in relation to the pointer.

C   The speedometer does not read zero when the car is at rest.

D   The speedometer reads 10 % higher than the car's actual speed.

Space for working