

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

$$\text{diameter of first cylinder} = 12.78 \pm 0.02 \text{ mm}$$

$$\text{diameter of second cylinder} = 16.24 \pm 0.03 \text{ mm}$$

The difference in the diameters is calculated.

What is the uncertainty in this difference?

A $\pm 0.01 \text{ mm}$

B $\pm 0.02 \text{ mm}$

C $\pm 0.03 \text{ mm}$

D $\pm 0.05 \text{ mm}$

E The speedometer in a car consists of a pointer which rotates. The pointer is situated several