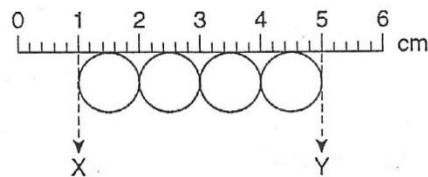


- 2** A student attempts to measure the diameter of a steel ball by using a metre rule to measure four similar balls in a row.



The student estimates the positions on the scale to be as follows.

X:  $(1.0 \pm 0.2)$  cm

Y:  $(5.0 \pm 0.2)$  cm

What is the diameter of a steel ball together with its associated uncertainty?

- A**  $(1.0 \pm 0.1)$  cm
- B**  $(1.0 \pm 0.2)$  cm
- C**  $(1.0 \pm 0.24)$  cm
- D**  $(1.0 \pm 0.4)$  cm