

A student measures the time period of 100 oscillations of a simple pendulum four times. The data set is 90 s, 91 s, 95 s and 92 s. If the minimum division in the measuring clock is 1 s, then the reported mean time should be:

A $92 \pm 2 \text{ s}$

B $92 \pm 5.0 \text{ s}$

C $92 \pm 1.8 \text{ s}$

D $92 \pm 3 \text{ s}$

Correct option is A)

Sum of all observation = $90 + 91 + 95 + 92 = 368$

Average = $368/4 = 92$

Sum of modulus errors = $2 + 1 + 3 = 6$

Average error = $6/4 = 1.5$, rounded of 2.

Final answer = (92 ± 2) s