

Q1:

The period of the vertical oscillations of a mass hanging from a spring is known to be constant.

- (a) A student times single oscillations with a stopwatch. In 10 separate measurements, the stopwatch readings were:

1.8s, 1.9s, 1.7s, 1.9s, 1.8s, 1.8s, 1.9s, 1.7s, 1.8s, 1.8s.

What is the best value obtainable from these readings for the time of one oscillation? Explain how you arrive at your answer.

best value =

explanation

..... [1]

- (b) Describe how, using the same stopwatch, the student can find the period of oscillation more accurately.

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[Total: 5]