

Answer on Question #41749 – Physics - Mechanics | Kinematics | Dynamics

In an experiment, 20 complete oscillations were made in 14.3 seconds. Determine the value of the square of the period, T^2

0511s²

13402

2004s²

4890s²

Solution:

Formula for the period (N- number of complete oscillations):

$$T = \frac{t}{N} \Rightarrow T^2 = \left(\frac{t}{N}\right)^2 = \left(\frac{14.3 \text{ s}}{20}\right)^2 = 0.511 \text{ s}^2$$

Answer: square of the period is equal to 0.511s².