Answer on Question #41750 Physics – Other

What is the frequency of oscillation of a simple pendulum which makes 50 oscillations in 24.4 seconds?
0.23Hz
0.014Hz
0.488Hz
2.049Hz

Solution:
$t = 24.4s - time\ of\ the\ measurement;$
$N = 50 - number\ of\ oscillations;$
Formula for the frequency (T − period):
$$f = \frac{1}{T} = \frac{1}{\frac{t}{N}} = \frac{1}{\frac{24.4s}{50}} = 2Hz$$
Answer: frequency of oscillation of a simple pendulum is equal to 2Hz.