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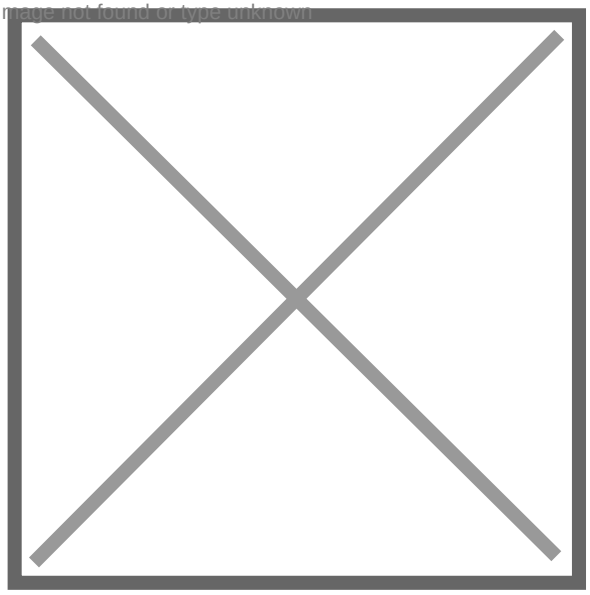
Product Name :

Mathematical Pendulum Demonstration Apparatus

Product Code :

SCL-219/042

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Description :

Mathematical Pendulum Demonstration Apparatus (Product Code: SCL-219/042) is a simple pendulum apparatus used to study oscillation periods and determine the acceleration due to gravity in school and college mechanics practicals. A sphere hangs on a thread from a 500 mm mild steel rod set in a 200 x 125 mm mild steel base, and a digital stopwatch and 50 cm ruler are included for timing and length measurement. The apparatus is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, an OEM manufacturer, at its own factory in Ambala, India.

Specifications

Parameter	Detail
Base	Mild steel, 200 x 125 mm
Support rod	Mild steel, 500 x 10 mm (length x diameter; listed as square)
Pendulum	Mathematical pendulum: sphere hung on an elongated thread; diameter listed as 25 mm
Additional steel rod	150 x 0.1 mm (as listed)
Timing	Digital stopwatch (named twice in the contents list; quantity confirmed in the quotation)
Length measurement	Ruler, 50 cm long
Thread	Spool of cotton thread
Product code	SCL-219/042
Manufacturer	Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM
Country of origin	India (made in Ambala, Haryana)

What Is the Mathematical Pendulum Apparatus Used For?

A mathematical (ideal) pendulum treats the bob as a point mass on a light, inextensible thread, and its period depends only on length and gravity: T = 2??(L/g). Students tie the sphere to cotton thread from the spool, fix the thread to the steel rod, measure the length from the point of suspension to the centre of the sphere with the 50 cm ruler, and time several complete swings with the digital stopwatch.

Repeating the timing for different thread lengths and plotting T^2 against L gives a straight line whose slope equals $4?^2/g$, so the class can calculate g from its own data. Keep the swing angle small (under about 10°), time 20 oscillations and divide to reduce reaction-time error, and make sure the heavy base sits on a level bench so the rod stays still.

What to Specify When Ordering

- Number of apparatus sets for your class groups.
- Number of digital stopwatches wanted per set, since the contents list names the stopwatch
-

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