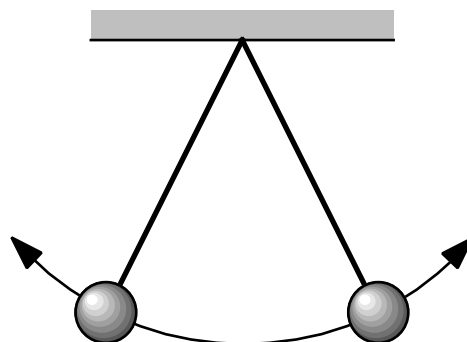


Liverpool Physics Olympics 1995



Newton's Cradle

Aim To measure the ratio of the masses of two pendulum bobs.

Materials 2 pendula suspended from the ceiling
1 metre rule

Method Assuming elastic collisions (*i.e.*, conservation of energy) determine the ratio of masses by repeatedly colliding the two bobs.

Conditions

- The ratio must be determined by using the pendula as pendula.
- No levers allowed!

Caution To achieve reasonable results it is important that the collisions are head-on and that the point of collision is as “point-like” as possible.

Time limit 25 minutes

Ranking The ranking order will be determined by the difference between the ratio determined and the actual ratio.

Team

Result

Do not write below line

Score