

P535/2
Physics
Paper 2 (Practical)
April/May 2024
2 Hours

Uganda Certificate of Lower Secondary Education

End of Term I Assessment Examinations 2024

Competence Based Curriculum

S.3 Physics

Paper 2 (Practical)

2 Hours

INSTRUCTIONS TO CANDIDATES

This paper consists of **only two (2)** scenario-based items carrying equal marks.

You are required to attempt any **one (1)** question. Any additional question(s) attempted shall not be scored.

Candidates are **not** allowed to start working with the apparatus for the **first quarter of an hour**. This time is to enable candidates; read the items thoroughly, checking for the apparatus they will need and plan appropriately.

A graph paper shall be provided for data representation.



Silent non-programmable scientific calculators may be used.

You may lose marks if you do not show your working or if you do not use appropriate S.I units.

Poor handwriting and untidy work shall lead to loss of marks.

At the end of the examination, fasten all your work securely together.

Item 1.

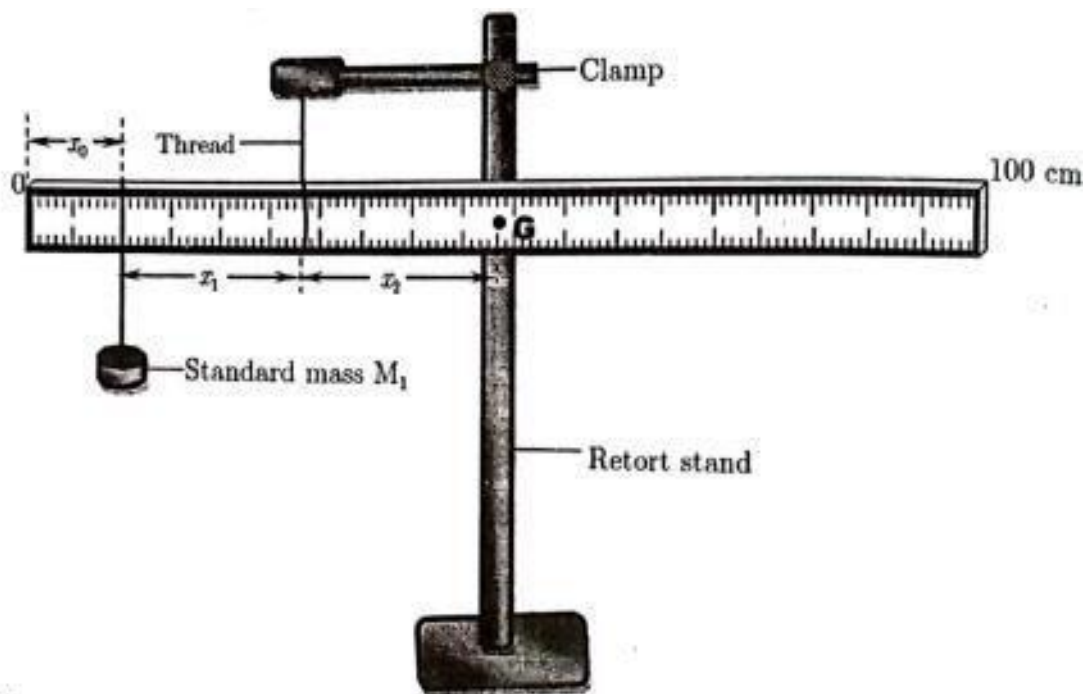
One of the requirements of the new lower secondary school curriculum is project work. Learners of Physics in Yale High School designed a uniform metre rule as their project.

When their Physics teacher looked at the metre rule they had designed, he was impressed and commended them for the good work. However, when the teacher asked them the mass of the metre rule they had designed, they could not tell him and there was no beam balance for them to use for measurement.

One of the learners came up with an idea on how to determine the mass of the metre rule. When he was given the opportunity by the teacher to determine the mass of the metre rule they had made using his method, he tried but the value he obtained looked too big and the teacher was not satisfied with the results.

Experimental setup





Task:

As a Physics learner and using the arrangement of the apparatus above, carry out a scientific investigation to help the other learners determine the mass of the uniform metre rule they designed as their project work.

Hint:

Principle of moments applies.

Item 2.

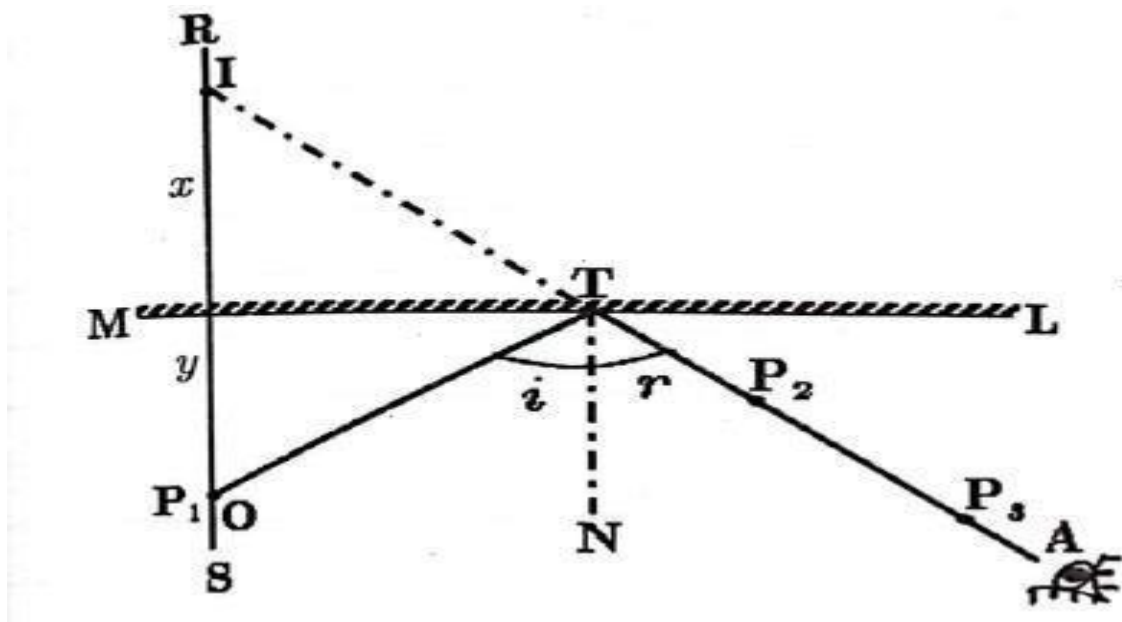
Salimah and her mother were dressing up to go for a wedding party. They went in front of a plane mirror while dressing up. Salimah, who is in Senior Three (S.3) told her mother that the distances of their images from the plane mirror, was equal to the distance between them and the plane mirror.

However, her mother disagreed claiming that their images were closer to the plane mirror than they are. Salimah told her mother that their Physics teacher told them that the distance of any



object placed in front of a plane mirror forms its image at the same distance behind the plane mirror as the object is in front of the mirror. Her mother challenged her to prove it.

Experimental setup



Task:

As a learner of Physics and using the arrangement of the apparatus shown above, carry out a scientific investigation to show the relationship between the object distance and the distance of its image from the plane mirror.

Hint:

Laws of reflection apply.

*****THE END*****

