



Rewarding Learning

General Certificate of Secondary Education
2024

Centre Number

--	--	--	--	--

Candidate Number

--	--	--	--	--

Double Award Science Physics

Unit 7: Practical Skills

Booklet A
Foundation Tier

[GDW71]



GDW71

TIME

1 hour.

INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.

Write your answers in the spaces provided in this question paper.

Answer **all** questions.

INFORMATION FOR CANDIDATES

The total mark for this paper is **15**.

Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

Follow all health and safety instructions.

You may use a ruler and calculator if required.

The apparatus and materials required to complete the task(s) are provided.

For Examiner's
use only

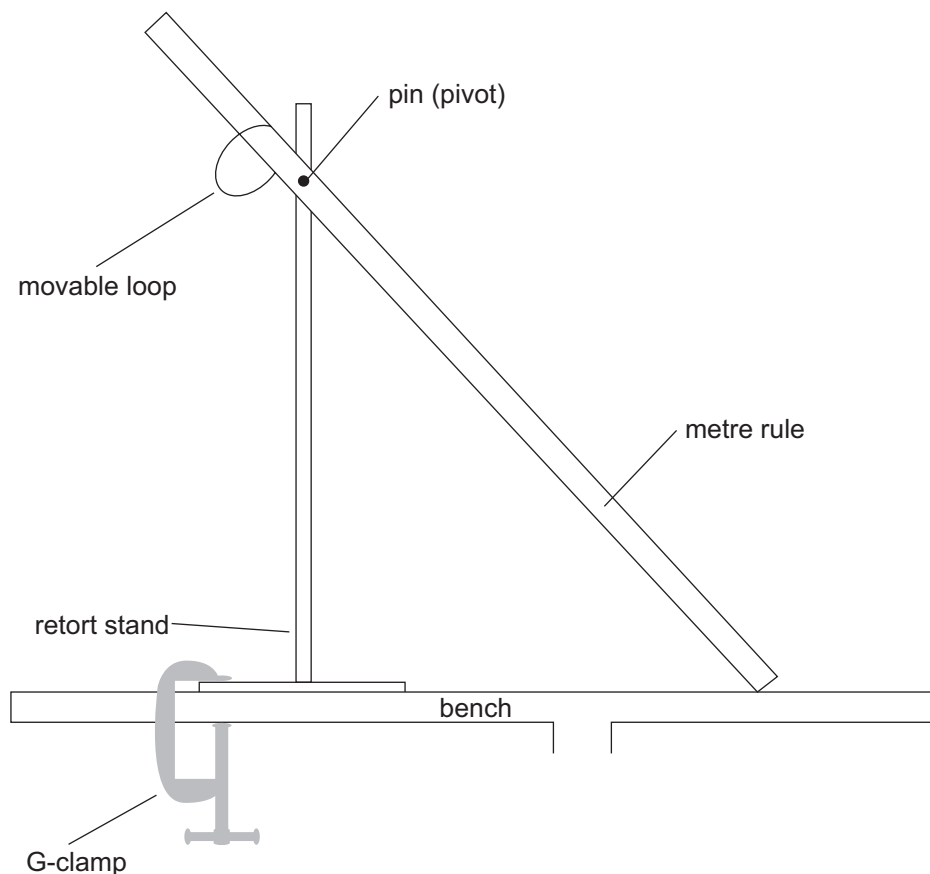
Question Number	Marks
1	

Total Marks	
----------------	--

- 1 In this experiment you are going to find the weight of a metre rule using the **Principle of Moments**.

You should wear safety glasses for the duration of the experiment or until you are told to remove them by the supervisor.

The following apparatus has been set up.



The distance from the pin (pivot) to the centre of the metre rule is 15 cm.

Examiner Only	
Marks	Remark

-
- Diagram illustrating the setup for measuring the center of mass of a beam. A horizontal beam is supported by a central pivot (pin) at the 50 mark. A movable loop is attached to the left end of the beam, with a mass hanger hanging from it. The distance from the left end to the pivot is labeled D . The beam is marked with 0, 35, 50, and 100.

Record the distance, D , for 1.0 N in **Table 1**. [1]

Weight / N	Distance D / cm	Moment / Ncm
1.0		
2.0		
3.0		

- Candidates are now to work independently for the rest of the experiment.**

BLANK PAGE

(Question 1 continues overleaf)

- (ii) What is the relationship between the size of the moment and the distance from the pin (pivot), as shown in the graph you plotted?

Tick (✓) the correct box below.

- ☐ The size of moment increases as the distance from the pin (pivot) decreases.
- ☐ The size of moment and the distance from the pin (pivot) are directly proportional.
- ☐ The size of moment and the distance from the pin (pivot) are independent.

[1]

THIS IS THE END OF THE QUESTION PAPER

Examiner Only	
Marks	Remark

Permission to reproduce all copyright material has been applied for.
In some cases, efforts to contact copyright holders may have been unsuccessful and CCEA
will be happy to rectify any omissions of acknowledgement in future if notified.