



General Certificate of Secondary Education
2024

Centre Number

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Candidate Number

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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

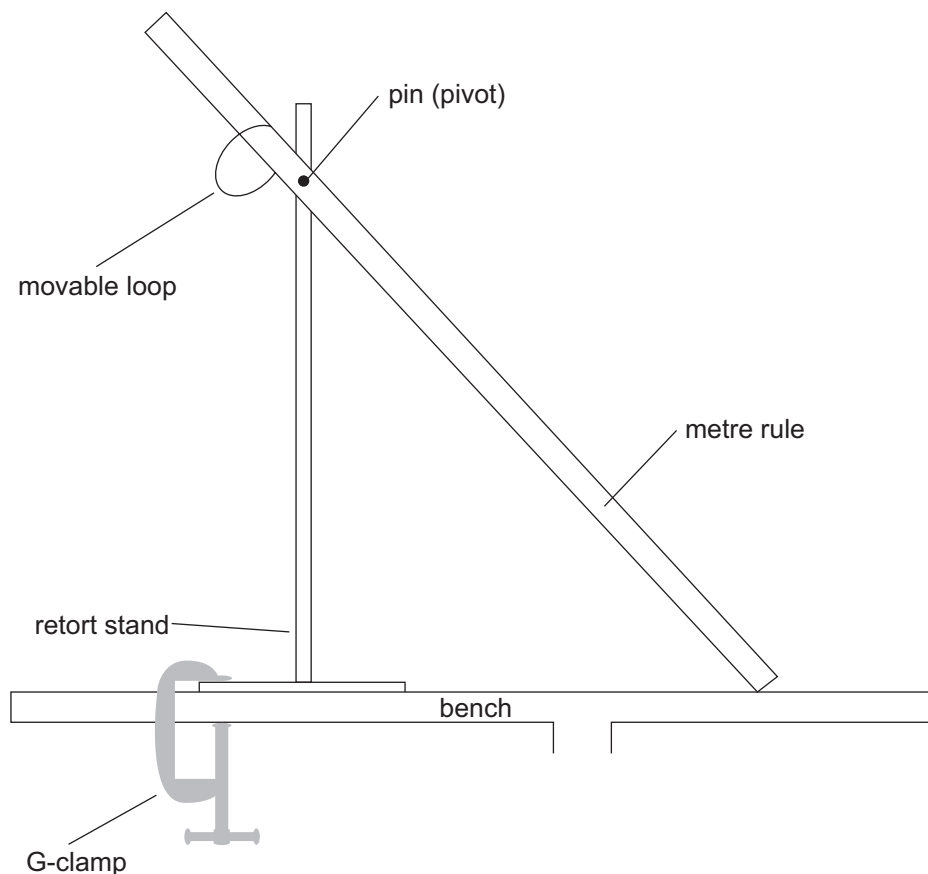
Question Number	Marks
1	

Total Marks	
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- 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

-

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.**

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(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

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Rewarding Learning

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APPARATUS AND MATERIALS LIST AND CONFIDENTIAL INSTRUCTIONS

To be accessed by Head of Department only

It is the responsibility of the centre to ensure that appropriate risk assessments are carried out for all practical skills assessments.

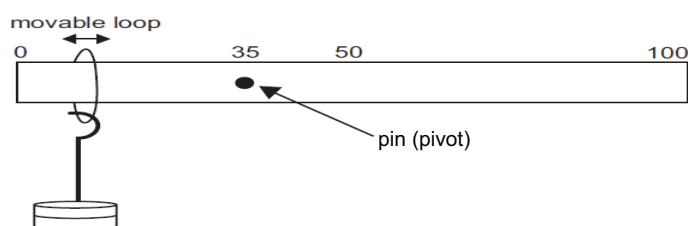
Apparatus list GDW71 Physics 2024

- Safety glasses
- Retort stand
- Clamp and boss
- Standard wooden 1 metre rule with small hole drilled through at 35 cm
- Cork
- Optical pin which can pass through drilled hole at 35 cm in metre rule
- String/cord loop
- 1 × 100 g mass hanger
- 2 × 100 g slotted masses
- G-clamp

Teacher Instructions GDW71 Double Award Physics 2024

Prepare apparatus as below:

- Insert the optical pin through the hole in the metre rule.
- Use the G-clamp to clamp the retort stand to the bench.
- Clamp the cork and test that the metre rule moves freely when suspended from the optical pin.
- Test that the movable (string/cord) loop does not slide off the metre rule.
- Test that when slotted masses are hung onto the metre rule, the pin remains attached to the cork.



- Set up for candidates in laboratory, ready for use, as shown below.
- The slotted masses and mass hanger should be placed on the bench for candidates to complete experiment.

