

Examiners' report

GCSE

GATEWAY SCIENCE PHYSICS A

**OCR Level 1/Level 2 GCSE (9-1) in
Physics A (Gateway Science)**

J249

For first teaching in 2016

J249/01 Summer 2025 series

Contents

Introduction	4
Paper 1 series overview	5
Section A overview	6
Question 3	6
Question 6	7
Question 7	7
Question 10	8
Question 14	9
Question 15	10
Section B overview	11
Question 16 (a), (b), (c) and (d)	11
Question 16 (e) (i)	13
Question 16 (e) (ii)	13
Question 17 (a)	14
Question 17 (b) (i)	14
Question 17 (b) (ii)	15
Question 17 (b) (iii)	15
Question 17 (c) (i) and (c) (ii)	16
Question 18 (a)	17
Question 18 (b)	18
Question 18 (c)	18
Question 18 (d)	19
Question 18 (e)	19
Question 19*	20
Question 20 (a)	21
Question 20 (b)	22
Question 20 (c)	23
Question 20 (d) (i)	24
Question 20 (d) (ii)	24
Question 21 (a) (i)	25
Question 21 (a) (ii)	26
Question 21 (a) (iii)	26
Question 21 (b)	27
Question 22 (a) (i)	28

Question 22 (a) (ii)	29
Question 22 (a) (iii)	30
Question 22 (b) (i)	31
Question 22 (b) (ii)	31
Question 22 (b) (iii)	32
Question 22 (b) (iv)	32
Question 23 (a)	33
Question 23 (b)	34

Introduction

Our examiners' reports are produced to offer constructive feedback on candidates' performance in the examinations. They provide useful guidance for future candidates.

The reports will include a general commentary on candidates' performance, identify technical aspects examined in the questions and highlight good performance and where performance could be improved. A selection of candidate responses is also provided. The reports will also explain aspects which caused difficulty and why the difficulties arose, whether through a lack of knowledge, poor examination technique, or any other identifiable and explainable reason.

Where overall performance on a question/question part was considered good, with no particular areas to highlight, these questions have not been included in the report.

A full copy of the question paper and the mark scheme can be downloaded from [Teach Cambridge](#).

Would you prefer a Word version?

Did you know that you can save this PDF as a Word file using Acrobat Professional?

Simply click on **File > Export to** and select **Microsoft Word**

(If you have opened this PDF in your browser you will need to save it first. Simply right click anywhere on the page and select **Save as . . .** to save the PDF. Then open the PDF in Acrobat Professional.)

If you do not have access to Acrobat Professional there are a number of **free** applications available that will also convert PDF to Word (search for PDF to Word converter).

Paper 1 series overview

This paper is designed to assess content from Topics P1 to P4 and P9 at Foundation level.

The accessibility principles described in the resource 'Exploring our exam papers' continue to be applied. The final two questions in the component (Questions 22 and 23) are overlap questions with the higher tier component J249/03. Although these questions targeted higher achieving candidates, most candidates were given some marks including for attempting the graph and calculation parts of Question 22 (b) and the first part of 23 (a).

Higher scoring candidates' scripts had many examples of numerical questions where working out was clearly shown, as in previous years. This allowed the understanding of candidates who were unable to complete the calculation correctly to be credited. Candidates should be encouraged to show how they rearrange the equation and substitute the data from the question into the equation as a first step.

In this paper, for Question 19, candidates had the opportunity to demonstrate their knowledge and understanding of physics by constructing their own response. It is important that candidates respond to all parts of the question set when answering this type of question.

In questions where an explanation is required, candidates should be encouraged to use the marks allocated and the number of lines provided as a guide to the length of their responses.

Candidates who did well on this paper generally:	Candidates who did less well on this paper generally:
- attempted all the questions - showed their working in calculation questions - were able to rearrange equations in the form $a = b \times c$ and $a = \frac{b}{c}$ - read the questions carefully before answering - included calculations in Question 19, the Level of Response question - were able to use standard form in calculations such as in Question 18 (e) - showed familiarity with practical suggestions from the specification.	- did not respond to some questions - did not show working in calculation questions.

OCR support



OCR produces a resource that explains the practical skills that candidates are expected to experience, including a practical skills booklet and support guide for teachers.

[Practical activities in J249 Physics](#)

Section A overview

Very few of these fifteen multiple-choice questions were left blank. Questions 1, 9 and 12 were correctly answered by the majority of candidates. Questions 3, 4, 6 and 11 were only answered correctly by the most successful candidates.

Candidates should be encouraged to write their answer clearly and unambiguously. If candidates change their mind about an answer, they should clearly cross it out and write their final choice next to the answer box. Attempting to overwrite or alter the old answer should be avoided. Marks cannot be given if the answer is unclear.

Some candidates made good use of the white space adjacent to multiple-choice questions to help organise their thoughts and for calculations.

Comments follow on six of the fifteen questions where there are points which could be of use to centres.

Question 3

- 3 Which row shows the minimum number of forces needed to stretch an object and the minimum number of forces needed to bend an object?

	Minimum number of forces needed to stretch an object	Minimum number of forces needed to bend an object
A	1	1
B	1	2
C	2	1
D	2	2

Your answer

[1]

The correct response for this question was Option D. Option A was commonly chosen.

Question 6

6 There is a current of 50 mA in a wire for 250 s.

What is the charge flow?

Use the equation: charge flow = current $\times$ time

- A 5.0 C
- B 12.5 C
- C 5000 C
- D 12500 C

Your answer

[1]

This question required the candidate to rearrange the equation given and was poorly answered in general. Many higher scoring candidates used the 'white space' to rearrange the equation and calculate the charge flow.

Question 7

7 What is a correct unit for **pressure**?

- A kg m/s^2
- B Nm
- C N/m
- D Pa

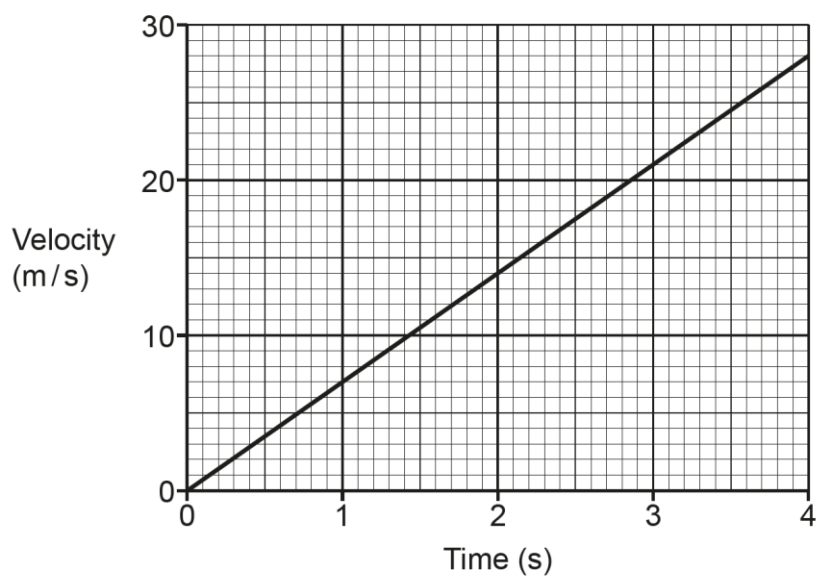
Your answer

[1]

This is a straight recall question and many candidates answered it well.

Question 10

10 A teacher draws a velocity–time graph for a moving object.



What is the **acceleration** of the object?

Use the equation: $\text{acceleration} = \frac{\text{change in velocity}}{\text{time}}$

- A 7.0 m/s²
- B 7.5 m/s²
- C 56 m/s²
- D 112 m/s²

Your answer

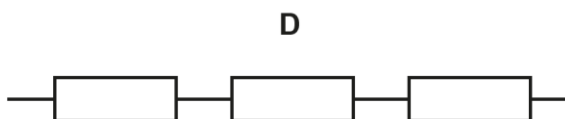
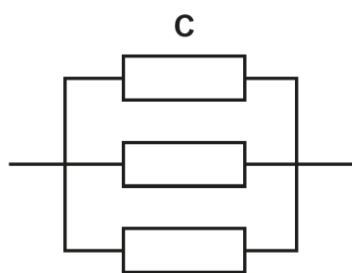
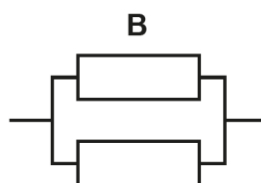
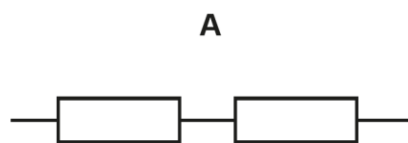
[1]

The correct response was A 7.0 m/s² found by reading the graph and performing the calculation $28 \div 4$. This question was answered well, even though it involved two steps.

Question 14

14 A student connects identical resistors together.

Which combination of resistors has the **lowest** resistance?



Your answer

[1]

This question was answered correctly by the majority of candidates. There was an almost even spread of answers across A, B, C and D.

Question 15

15 A large freezer contains 10.0 kg of ice at 0 °C.

How much energy is needed to change the ice into water?

Use the equation: thermal energy for a change in state = mass × specific latent heat

Specific latent heat of water = 334 000 J/kg

A 3.34 kJ

B 33.4 kJ

C 3.34 MJ

D 33.4 MJ

Your answer

[1]

This question had two steps to get to the correct answer: multiply 334 000 J by 10 to give 3 340 000 J and then successfully convert the units from J to MJ to give 3.34 MJ. Evidence from scripts suggests that candidates who wrote the result of the first calculation and then worked out the conversion in the 'white space' were more successful on this question.

Exemplar 1

Your answer

$$CIS = 10 \times 334,000 = 3,340,000$$

The candidate has written out the answer and clearly divided it up with commas making the conversion from J to MJ much simpler.

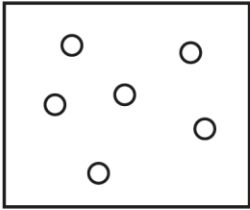
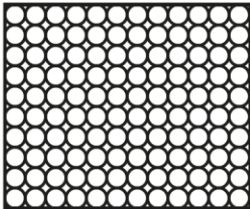
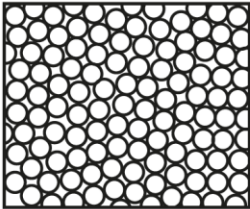
Section B overview

Section B consisted of short 1-mark questions as well as questions requiring longer answers and a Level of Response question (Question 19). This section covered all of the assessment objectives and many of the questions required candidates to use mathematical skills. The calculation questions in this section were well answered by candidates who were able to rearrange simple equations in the form $a = b \times c$ and $a = \frac{b}{c}$. The candidates who clearly wrote out their working benefitted as examiners were able to give some marks for correct steps, such as substitution into and rearrangement of the equation, even if the final answer was incorrect.

Question 16 (a), (b), (c) and (d)

16 A student draws particle models of a solid, a liquid and a gas.

(a) Draw lines to connect each **state of matter** with its correct **particle model**.

State of matter	Particle model
solid	
liquid	
gas	

[2]

(b) Which state of matter is the easiest to compress?

Tick (✓) **one** box.

Solid

☐

Liquid

☐

Gas

☐

[1]

(c) Which state of matter is the **least** dense?

Tick (✓) **one** box.

Solid

☐

Liquid

☐

Gas

☐

[1]

(d) Which state of matter has the **least** kinetic energy per particle?

Tick (✓) **one** box.

Solid

☐

Liquid

☐

Gas

☐

[1]

Parts (a), (b), (c) and (d) of this question offered a gentle introduction to Section B, and many candidates were given full marks.

Question 16 (e) (i)

(e) A sealed plastic bottle containing warm air is placed into icy water.

(i) Complete the sentences to describe what happens to the air in the bottle.

Use words from the list.

decreases

increases

stays the same

The mass of the air

The speed of the air molecules

The force exerted by the air molecules on the walls of the bottle

.....

The pressure exerted by the air

[4]

Only the highest scoring candidates had all parts of this question correct, although the majority had one or two parts correct.

Question 16 (e) (ii)

(ii) Suggest what might happen to the shape of the sealed plastic bottle if it is kept in the icy water for a long time.

.....

..... **[1]**

This was well answered by most candidates and many of the descriptions suggested that they were describing something they had seen.

Question 17 (a)

17 A student investigates magnetic fields using a bar magnet.

(a) Draw the magnetic field around the bar magnet.

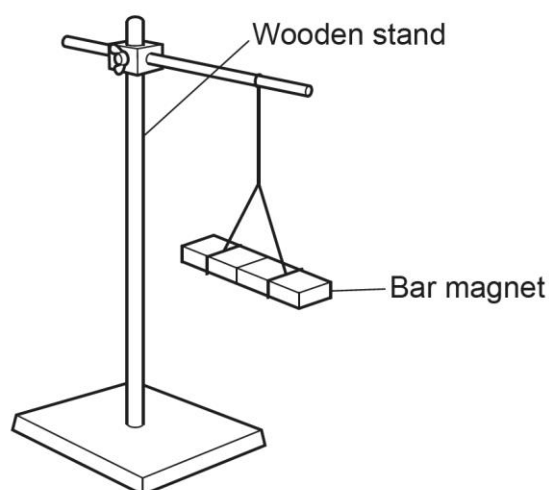


[3]

Most candidates attempted this question, and a large proportion of the responses were on the whole correct and were given 2 marks. Confusion over the direction of the field and occasional crossing field lines were the most common errors.

Question 17 (b) (i)

(b) The student freely suspends the bar magnet from a wooden stand.



(i) Why did the student choose a wooden stand instead of an iron stand?

..... [1]

All but the lowest scoring candidates realised that an iron stand would interfere with the experiment.

Question 17 (b) (ii)

(ii) The bar magnet is able to move freely.

In which direction does the bar magnet face when it **stops** moving?

Tick (✓) **one** box.

East-west

☐

North-south

☐

Up-down

☐

[1]

This recall question was also well answered by the majority of candidates.

Question 17 (b) (iii)

(iii) Why does the bar magnet face in this direction?

Tick (✓) **one** box.

It lines up with the wooden stand.

☐

It lines up with the Earth's gravitational field.

☐

It lines up with the Earth's magnetic field.

☐

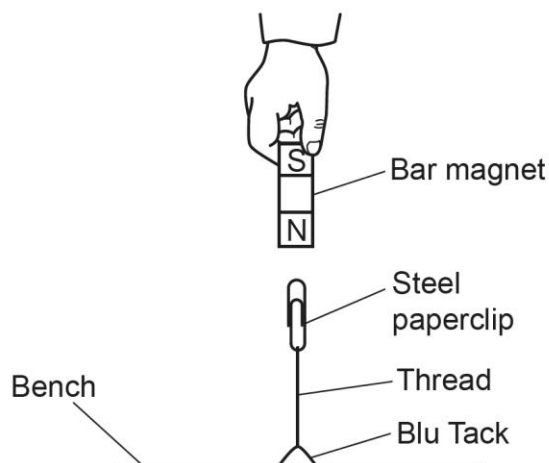
[1]

This part was less well answered than the previous two, with the most common incorrect answer being the middle option.

Question 17 (c) (i) and (c) (ii)

- (c) An unmagnetised steel paperclip is attached to Blu Tack using thread. The Blu Tack is stuck to a bench.

The student uses the bar magnet to lift the paperclip until the paperclip is suspended in the air.



- (i) Which type of magnet is the steel paperclip?

Tick (✓) **one** box.

Induced

☐

Permanent

☐

Solenoid

☐

[1]

- (ii) Explain your answer to (c)(i).

.....

..... [1]

All but the lowest scoring candidates knew that the paper clip had become an induced magnet but fewer candidates were able to explain that this was due to it being placed in the field of a permanent magnet. A small number of candidates realised that the paper clip may have retained some of the magnetism and examiners accounted for answers describing this.

OCR support



OCR produces a resource that explains the practical skills that candidates are expected to experience, including a practical skills booklet and support guide for teachers.

[Practical activities in J249 Physics](#)

Question 18 (a)

18 The model of the atom has changed over time.

(a) Three scientists worked on models of the atom.

Draw lines to connect each **scientist** with the correct description of the **scientist's work**.

Scientist	Scientist's work
Bohr	developed the plum pudding model of the atom
Rutherford	discovered electrons can only move in fixed orbits called shells
Thomson	fired alpha particles at gold foil

[2]

This recall of information question was generally answered well by the majority of candidates.

Question 18 (b)

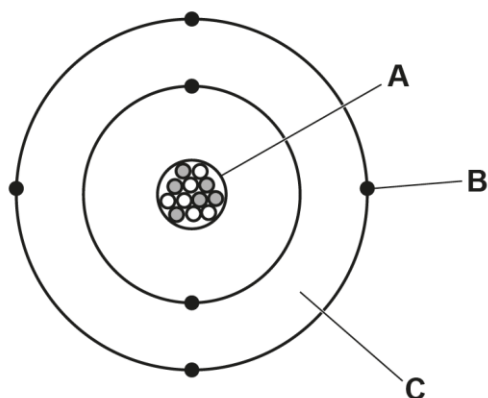
(b) Suggest **one** reason why models change over time.

.....
..... [1]

This question was also very well answered. The majority of correct answers were on the theme of scientific discovery leading to improved models while higher scoring candidates often mentioned peer review alternatively or in addition to this.

Question 18 (c)

(c) The diagram shows a model of an atom.



Write down which letter, **A**, **B** or **C**, represents the following in the diagram.

The nucleus:

An electron:

[2]

This question was almost universally answered correctly.

Question 18 (d)

(d) Complete the sentences.

Put a ring around the correct statement in each box.

The nucleus is

negatively charged
neutral
positively charged

Electrons are

negatively charged
neutral
positively charged

[2]

This question was also answered correctly by the majority of middle and higher scoring candidates.

Question 18 (e)

(e) One atom has a diameter of 1×10^{-10} m.

A molecule has 50 atoms in a line.

Calculate the length of this molecule.

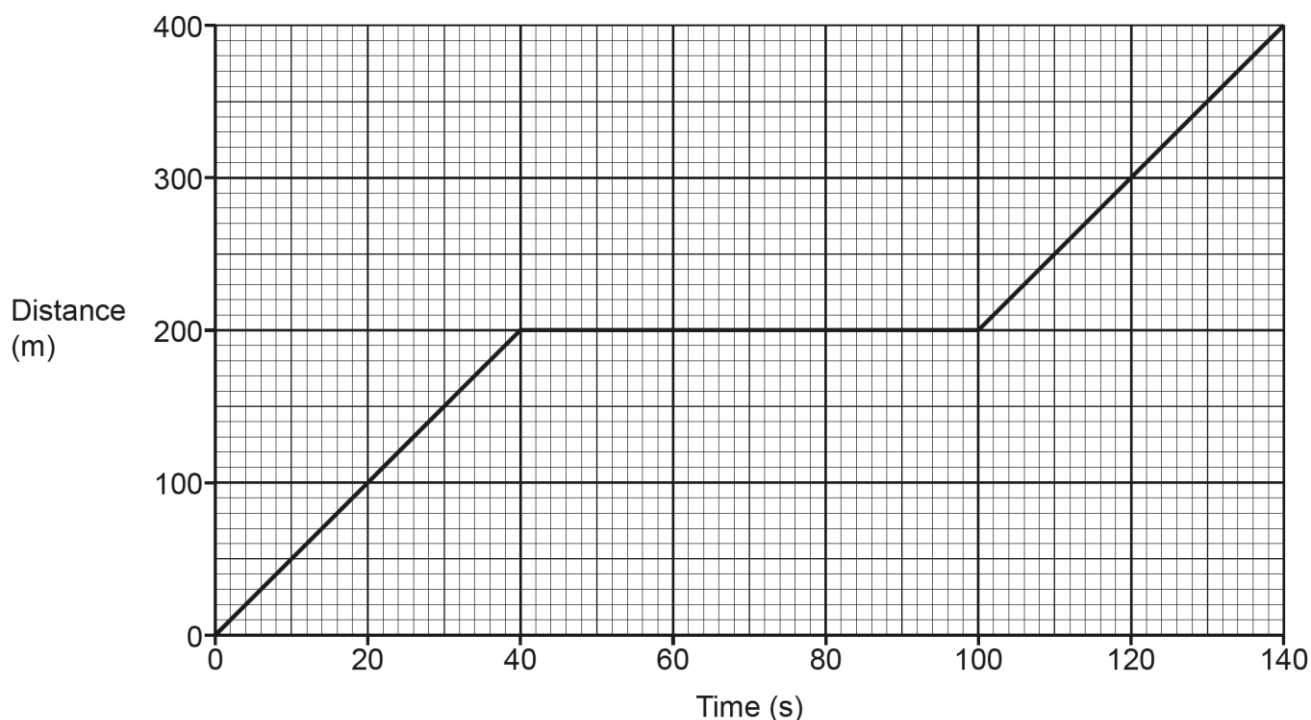
Write your answer in **standard form**.

Length = m [2]
Turn over

Most candidates attempted this question and many scored at least 1 mark. Candidates who were less confident with standard form tended to convert the question to ordinary numbers and then convert back to get the answer in standard form. Those candidates who wrote the working out process on their exam paper were able to score a mark even if the subsequent calculation or conversion to standard form was incorrect.

Question 19*

19* A student draws a distance–time graph of their bicycle journey to school.



Describe and explain the motion of the student at each stage of their journey.

Include calculations in your answer.

Use the Equation Sheet.

.....

.....

.....

.....

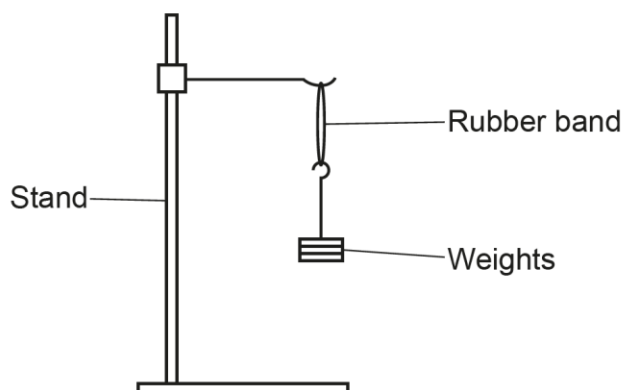
.....

..... [6]

Question 19 was a relatively straightforward Level of Response question for most Foundation tier candidates and many were able to give a creditworthy response. In common with Level of Response questions from the past, there were two parts to the question: description and calculation. Candidates who addressed both parts of the question were able to access Level 2 and Level 3 marks. Some candidates confused the distance-time graph in the question with a velocity-time graph and tried to calculate acceleration. Overall the majority of candidates were able to respond to this question positively and score marks.

Question 20 (a)

20 A student investigates how a rubber band stretches.



This is their method:

- Measure the original length of the rubber band using a ruler.
- Add 1.0N weights, one at a time.
- Measure the new length of the rubber band after each weight is added.

(a) Suggest **one** risk for this investigation and how the risk can be reduced.

Risk:

How the risk can be reduced:

.....

[2]

Most candidates realised that the major hazard of this experiment was consequences of the breaking of the rubber band. Some candidates chose to protect the eyes of the experimenters with goggles and some their feet with sturdy shoes or placing the experiment away from the edge of the bench. Altering the experiment by replacing the rubber band with a spring or a different sized rubber band was not credited as this would be a change to the experiment rather than spotting a hazard with the experiment presented in the question.

OCR support



OCR produces a resource that explains the practical skills that candidates are expected to experience, including a practical skills booklet and support guide for teachers.

[Practical activities in J249 Physics](#)

Question 20 (b)

(b) The student records this data when adding a weight:

Original length of the rubber band = 5.0 cm

New length of the rubber band after the weight is added = 14.0 cm

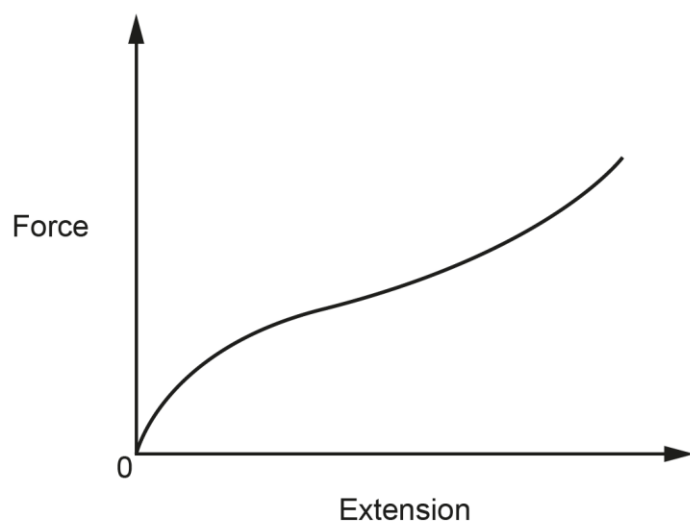
What is the extension of the rubber band?

Extension = cm **[1]**

The overwhelming majority of candidates were able to calculate the extension successfully although a common error among incorrect responses was to divide the original by the new lengths.

Question 20 (c)

(c) The student sketches a graph of the results of the investigation.



The student removes the weights from the rubber band. The rubber band returns to its original length.

Which statements about this investigation are **true**, and which are **false**?

Tick (✓) **one** box in each row.

Conclusion	True	False
The relationship between force and extension is linear.		
The rubber band obeys Hooke's Law.		
The deformation is only elastic.		

[2]

Full marks on this question were not seen very often, and then only from the highest scoring candidates.

Question 20 (d) (i)

(d) The student also stretches two springs.

(i) The first spring has a spring constant of 50 N/m.

Calculate the energy transferred in stretching when this spring is extended by 0.18 m.

Use the equation: energy transferred in stretching = $\frac{1}{2} \times \text{spring constant} \times (\text{extension})^2$

Energy transferred = J [2]

This question was well answered by middle and higher scoring candidates. There were very few errors connected to the $(\text{extension})^2$, which is a big improvement compared with previous years for this type of calculation.

Question 20 (d) (ii)

(ii) The second spring has a spring constant of 48 N/m.

Calculate the force needed to stretch this spring by 0.18 m.

Use the Equation Sheet.

Write your answer to **2** significant figures.

Force = N [4]

This question was also answered well by many candidates. The majority identified the correct equation from the equation sheet, and many were able to substitute into it successfully and perform the calculation. For those who were unable to complete the calculation, marks were available if they had chosen to write out their working. Only the higher scoring candidates successfully converted the 8.64 to a value of 8.6 to 2 significant figures, even though it was a relatively simple rounding.

Exemplar 2

$$\text{force exerted by a spring} = \text{spring constant} \times \text{extension}$$

$$8.64 \text{ N} = 48 \times 0.18$$

$$8.64 \xrightarrow{\text{2sf.}} 8.6$$

$$\text{Force} = \dots\dots\dots 8.6 \text{ N} \quad \text{N [4]}$$

In the exemplar, the candidate has written out the equation from the equation sheet. They have correctly substituted into the equation and calculated the correct answer. Then they have clearly shown their rounding to two significant figures and written their final answer on the answer line. Because they have shown their working, an error at any stage would still allow the examiner to see that the candidate had satisfied earlier marking points.

Question 21 (a) (i)

- 21
(a) In a shop, a lift moves customers a vertical distance of 12 m from the ground floor to the top floor.

The maximum weight of passengers allowed in the lift is 4500 N.

- (i) Calculate the maximum mass of passengers allowed in the lift.

Use the equation: gravitational force = mass $\times$ gravitational field strength

$$\text{Mass} = \dots\dots\dots \text{ kg [4]}$$

To answer this question candidates needed to know the value for gravitational field strength as 10 (N/kg), although 9.8 or 9.81 were also accepted as higher level answers. Candidates needed to substitute in the values to the given equation and rearrange it to calculate the mass. Many candidates were able to rearrange the equation but a common error was to substitute the given vertical distance of 12 m for the gravitational field strength, so only scoring the mark for the rearrangement.

Question 21 (a) (ii)

- (ii) Calculate the work done in moving the maximum weight of passengers between the ground floor and the top floor.

Use the equation: work done = force $\times$ distance

Work done = J [2]

This question was a simple substitution and calculation and was generally well answered across the range of candidates.

Question 21 (a) (iii)

- (iii) The lift takes 1.2 minutes to move the passengers from the ground floor to the top floor.

Calculate the power needed to move the maximum weight of passengers in the lift.

Use your answer from part (a)(ii) and the equation: power = $\frac{\text{work done}}{\text{time}}$

Power = W [3]

Many candidates who wrote out their working clearly were able to score marks on this question, although only the highest scoring candidates achieved all four marks. Error carried forward was allowed for correct use of an incorrect answer from part (a)(ii) and also for an incorrect or missing conversion from minutes to seconds as long as the working could be followed by the examiner.

Question 21 (b)

(b) The power of the motor of another lift is 920 W.

The potential difference across the motor of this lift is 230 V.

Calculate the current in the motor.

Use the Equation Sheet.

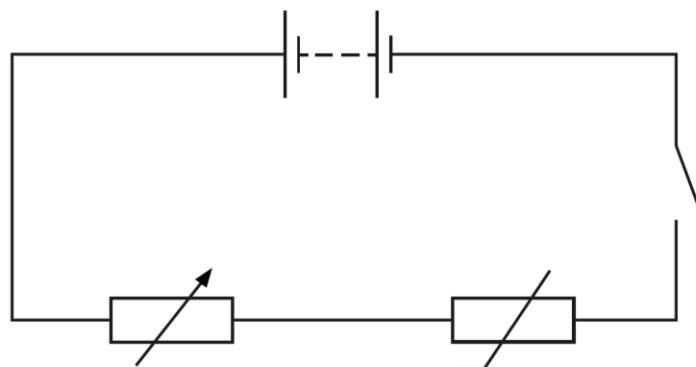
Current = A [4]

Question 21 part (b) was correctly answered by mid to high scoring candidates. Many low to mid scoring candidates who wrote out their working were able to get marks for correct rearrangement or correct substitution even if subsequent calculations were incorrect.

Question 22 (a) (i)

22 A student investigates the current–potential difference (I–V) characteristic graph for a thermistor.

The diagram shows the circuit that the student builds.



(a)

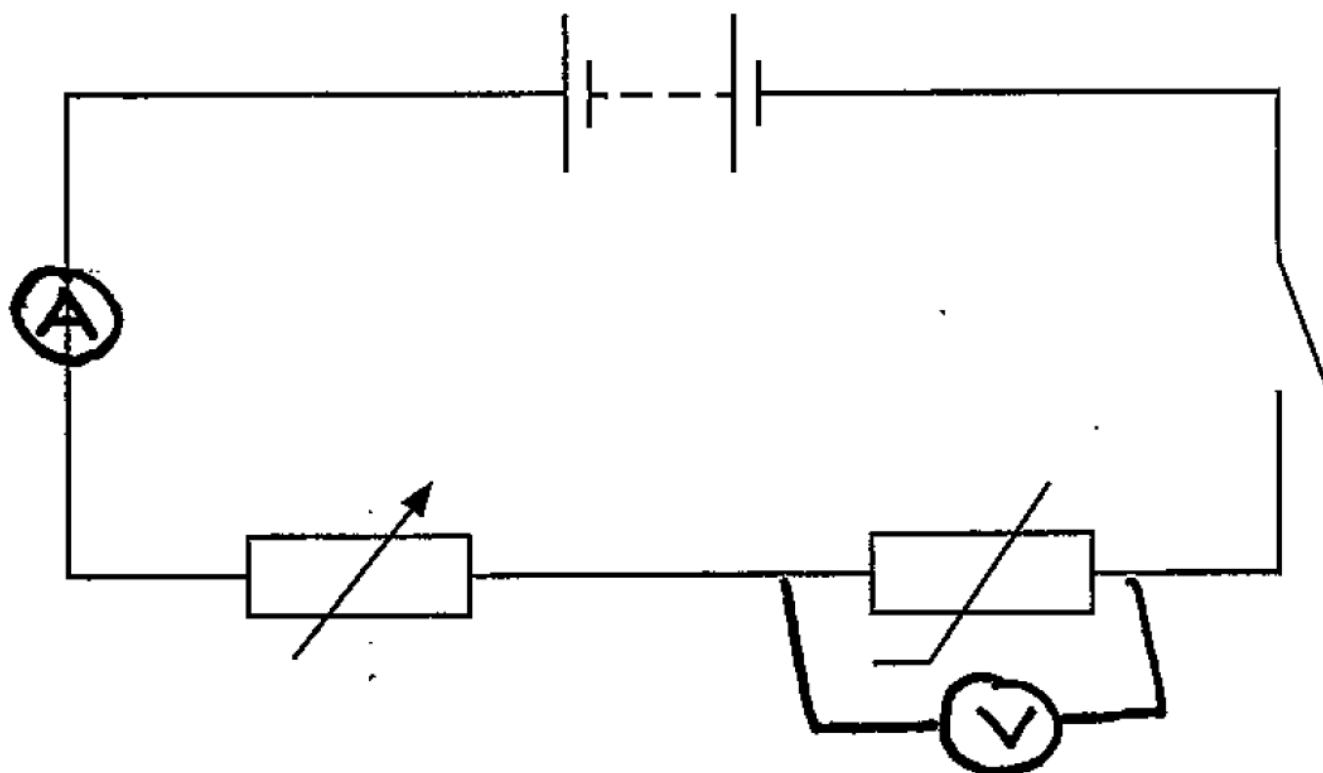
- (i) The student connects an ammeter and a voltmeter into the circuit to take the measurements needed for their investigation.

Draw **one** ammeter and **one** voltmeter in the correct positions in this circuit.

[3]

The most common mark given for this question was two out of a possible three. Most candidates could draw the symbols for ammeter and voltmeter correctly and place the ammeter in an appropriate part of the circuit. Only the highest scoring candidates scored all three marks by placing the voltmeter correctly in parallel to the thermistor.

Exemplar 3



In the exemplar, the candidate has drawn correct symbols for ammeter and voltmeter and has placed them in correct positions on the circuit diagram.

Question 22 (a) (ii)

(ii) Why does the student use a variable resistor in the circuit?

Tick (✓) **one** box.

To change the current in the circuit

☐

To change the potential difference of the battery

☐

To change the temperature of the circuit

☐

[1]

Just over half of all candidates correctly chose the top option in response to this question.

Question 22 (a) (iii)

- (iii) Explain why the student switches the circuit off between taking the readings of current and potential difference.

.....
..... [1]

Candidates who were aware that the components of the circuit were likely to heat up and change the results answered this question well.

OCR support

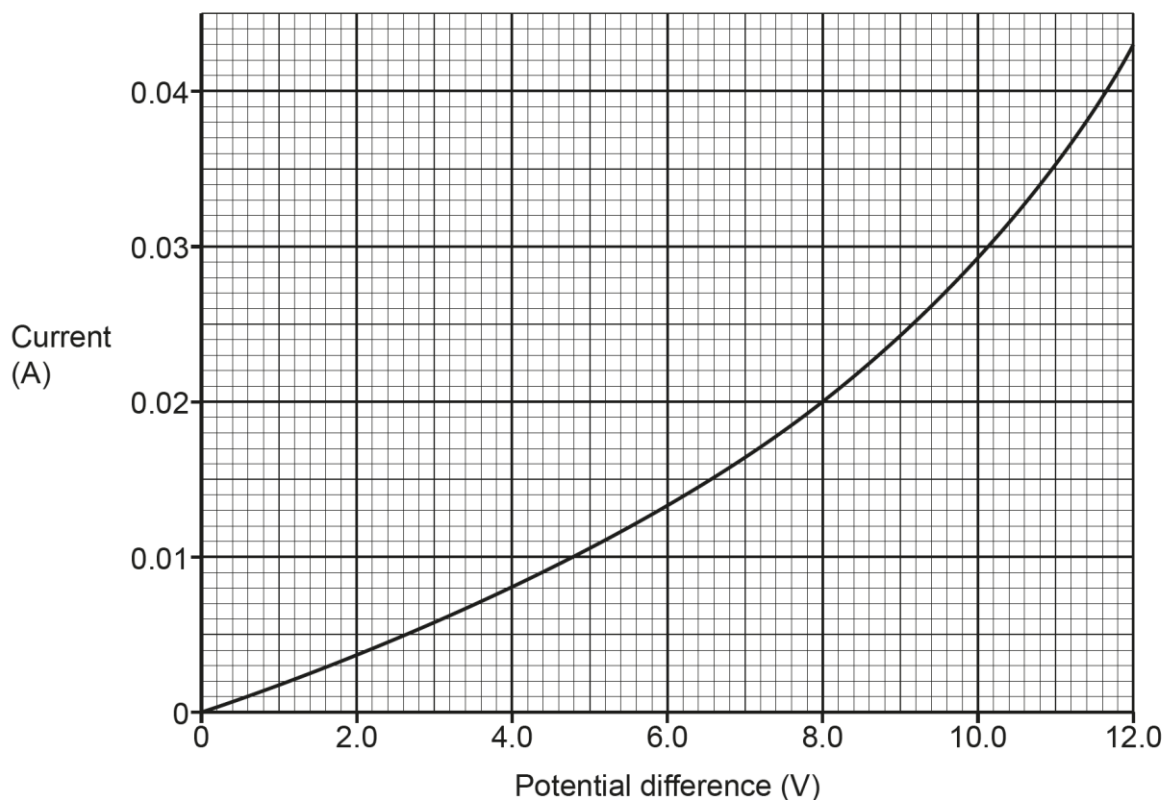


OCR produces a resource that explains the practical skills that candidates are expected to experience, including a practical skills booklet and support guide for teachers.

[Practical activities in J249 Physics](#)

Question 22 (b) (i)

(b) The student takes readings of current and potential difference and plots them on a graph.



(i) Describe the trend shown by the graph.

.....

.....

..... [2]

The majority of mid and high scoring candidates correctly stated that as the potential difference increases, the current increases and scored one mark for this question. Only a few of the highest scoring candidates scored the second mark for saying that the relationship was not linear.

Question 22 (b) (ii)

(ii) How does the resistance of the thermistor change as the potential difference increases?

..... [1]

This question was answered correctly by higher scoring candidates.

Question 22 (b) (iii)

(iii) State the current in the thermistor when the potential difference across the thermistor is 8.0V.

Use the graph.

Current = A **[1]**

The majority of candidates across the range were able to read the graph correctly and answer this question.

Question 22 (b) (iv)

(iv) Calculate the resistance of the thermistor when the potential difference across the thermistor is 8.0V.

Use the equation: potential difference = current $\times$ resistance

Resistance = Ω **[3]**

Even though a rearrangement of the equation was required, Question 22 (b) (iv) was generally completely correctly answered by most mid and high scoring candidates.

Question 23 (a)

23 An engineer is investigating the density of polystyrene.

(a) Describe how to determine the mass and volume of a rectangular polystyrene block.

.....

.....

.....

.....

.....

..... [3]

Most mid to high scoring candidates were able to gain some marks from this question. It was clear from higher scoring answers that some candidates were describing a method they had carried out themselves.

OCR support



OCR produces a resource that explains the practical skills that candidates are expected to experience, including a practical skills booklet and support guide for teachers.

[Practical activities in J249 Physics](#)

Question 23 (b)

(b) One polystyrene block has a density of 50 kg/m^3 .

The mass of the block is 0.60 kg .

Calculate the volume of the block.

Use the Equation Sheet.

Volume = m^3 [3]

Question 23 9b) was completely correctly answered by most higher scoring candidates. Most candidates across the range were able to identify and write down the correct formula from the equation sheet:

density = $\frac{\text{mass}}{\text{volume}}$. The most common reason for an incorrect final answer was incorrect rearranging of the equation.

Supporting you

Teach Cambridge

Make sure you visit our secure website [Teach Cambridge](#) to find the full range of resources and support for the subjects you teach. This includes secure materials such as set assignments and exemplars, online and on-demand training.

Don't have access? If your school or college teaches any OCR qualifications, please contact your exams officer. You can [forward them this link](#) to help get you started.

Reviews of marking

If any of your students' results are not as expected, you may wish to consider one of our post-results services. For full information about the options available visit the [OCR website](#).

Access to Scripts

We've made it easier for Exams Officers to download copies of your candidates' completed papers or 'scripts'. Your centre can use these scripts to decide whether to request a review of marking and to support teaching and learning.

Our free, on-demand service, Access to Scripts is available via our single sign-on service, My Cambridge. Step-by-step instructions are on our [website](#).

Keep up-to-date

We send a monthly bulletin to tell you about important updates. You can also sign up for your subject specific updates. If you haven't already, [sign up here](#).

OCR Professional Development

Attend one of our popular professional development courses to hear directly from a senior assessor or drop in to a Q&A session. Most of our courses are delivered live via an online platform, so you can attend from any location.

Please find details for all our courses for your subject on **Teach Cambridge**. You'll also find links to our online courses on NEA marking and support.

Signed up for ExamBuilder?

ExamBuilder is the exam paper builder platform for a range of our qualifications. [Find out more](#).

Free for all OCR centres with an Interchange account, it allows unlimited users per centre. We require an [Interchange](#) username to verify your centre's users for ExamBuilder.

If you do not have an Interchange account, please contact your centre administrator (usually the Exams Officer) to request a username.

Once you have an Interchange username, use the form on [this page](#) to sign up for ExamBuilder, or ask an existing user at your centre to create an ExamBuilder account for you.

Active Results

Review students' exam performance with our free online results analysis tool. It is available for all GCSEs, AS and A Levels and Cambridge Nationals (examined units only).

[Find out more](#).

Tell us what you think

Your feedback plays an important role in how we develop, market, support and resource qualifications now and into the future. We want you and your students to enjoy and get the best out of our qualifications and resources, but to do that we need your honest opinions to tell us whether we're on the right track or not.

You can email your thoughts to resources.feedback@ocr.org.uk or visit our [feedback page](#) to learn more about how you can help us improve our resources.



Designing and testing in [collaboration with you](#) and your students



Helping young people develop an [ethical view of the world](#)



Equality, diversity, inclusion and belonging (EDIB) are [part of everything we do](#)

Contact the team at:

☎ 01223 553998

🖥 ocr.org.uk

To stay up to date with all the relevant news about our qualifications, register for email updates at ocr.org.uk/updates

Visit our Online Support Centre at support.ocr.org.uk



OCR is part of Cambridge University Press & Assessment, a department of the University of Cambridge.

OCR is a Company Limited by Guarantee and an exempt charity. Registered in England. Registered office: The Triangle Building, Shaftesbury Road, Cambridge, CB2 8EA. Registered company number: 3484466.

We operate academic and vocational qualifications regulated by Ofqual, Qualifications Wales and CCEA as listed in their qualifications registers.

We are committed to providing a fully accessible experience across all our products, platforms, and websites. Find out more about our [accessibility standards](#).

© OCR 2025. All rights reserved. We retain the copyright on all our publications. However, our registered centres are permitted to copy and distribute our material for their own internal use, in line with any specific restrictions detailed in the publication. Find out more about our [copyright policies](#).

We update our publications regularly so please check you have the most up-to-date version.

We cannot be held responsible for the persistence or accuracy of URLs for external or third-party internet websites referred to in this publication and do not guarantee that any content on such websites is, or will remain, accurate or appropriate.

When we update our specifications, you'll see a new version number and a summary of the changes. While we do our best to reflect these changes in all associated resources on [Teach Cambridge](#), if you notice any discrepancies, please refer to the latest specification on our website and [let us know](#).

Our resources do not represent any teaching method we expect you to use. We cannot be held responsible for any errors or omissions in our resources.