

Name

Class

# MATHS TEACHER HUB

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## Interest

### (9 – 1) Topic booklet

These questions have been collated from previous years GCSE Mathematics papers.

**You must have:** Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser.

Total Marks

### Instructions

- Use **black** ink or ball-point pen.
- Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided  
– *there may be more space than you need.*
- Diagrams are NOT accurately drawn, unless otherwise indicated.
- You must **show all your working out.**
- If the question is a **1F** question you are not allowed to use a calculator.
- If the question is a **2F** or a **3F** question, you may use a calculator to help you answer.

### Information

- The marks for **each** question are shown in brackets  
– *use this as a guide as to how much time to spend on each question.*

### Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

**Answer ALL questions**  
**Write your answers in the space provided.**  
**You must write down all the stages in your working.**

- 13** Abi invests £500 for 4 years in a bank account.  
The account pays simple interest at a rate of 2.3% per year.

Work out the total amount of interest Abi has got at the end of 4 years.

£ .....

**15** Remi invests £600 for 5 years in a savings account.  
By the end of the 5 years he has received a total of £75 simple interest.

Work out the annual rate of simple interest.

.....%

November 2018 – Paper 2F

**(Total for Question 15 is 3 marks)**

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**16** Maria invests £4500 in a savings account for 3 years.  
The account pays simple interest at a rate of 1.8% per year.

Work out the total amount of interest Maria gets by the end of the 3 years.

£.....

November 2019 – Paper 2F

**(Total for Question 16 is 2 marks)**

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**22** Anil wants to invest £25 000 for 3 years in a bank.

**Personal Bank**

Compound Interest

2% for each year

**Secure Bank**

Compound Interest

4.3% for the first year  
0.9% for each extra year

Which bank will give Anil the most interest at the end of 3 years?  
You must show all your working.

**23** Ella invests £7000 for 2 years in an account paying compound interest.

In the first year, the rate of interest is 3%

In the second year, the rate of interest is 1.5%

Work out the value of Ella's investment at the end of 2 years.

£.....

November 2022 – 2F

**(Total for Question 23 is 3 marks)**

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**23** Northern Bank has two types of account.  
Both accounts pay compound interest.

<p><b>Cash savings account</b> Interest 2.5% per annum</p>
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<p><b>Shares account</b> Interest 3.5% per annum</p>
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Ali invests £2000 in the cash savings account.  
Ben invests £1600 in the shares account.

(a) Work out who will get the most interest by the end of 3 years.  
You must show all your working.

(4)

In the 3rd year the rate of interest for the shares account is changed to 4% per annum.

(b) Does this affect who will get the most interest by the end of 3 years?  
Give a reason for your answer.

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(1)

**25** Katy invests £200 000 in a savings account for 4 years.  
The account pays compound interest at a rate of 1.5% per annum.

Calculate the total amount of interest Katy will get at the end of 4 years.

£.....

June 2019 – Paper 3F

**(Total for Question 25 is 3 marks)**

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**25** Toby invested £7500 for 2 years in a savings account.  
He was paid 4% per annum compound interest.

How much money did Toby have in his savings account at the end of 2 years?

£ .....

Specimen 1 – Paper 2F

**(Total for Question 25 is 2 marks)**

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**26** A new phone cost £679

The value of the phone decreases at a rate of 4% per year.

Work out the value of the phone at the end of 3 years.

£.....

June 2022 – Paper 2F

**(Total for Question 26 is 3 marks)**