Surname	
Other Names	
Candidate's Signature	

GCSE 9 - 1 Questions

Percentages

Calculator Allowed

INSTRUCTIONS TO CANDIDATES

Write your name in the space provided.

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

Answer ALL questions.

Any working should be clearly shown in the spaces provided since marks may be awarded for partially correct solutions.

Total Marks :

1) **(a)** Using the information given complete the table.

Date	Present Reading	Previous Reading	Units Used	Units Price (pence)	Total Cost of Units
15 December 2007	45217	43577		9.5	£

[4]

(b) There is a discount of 5% for prompt payment. How much is the discount on this bill?

Answer £ _____ [2]

2) A company offers its workers a choice on how much their salary will increase next year. Each worker can receive either a £500 increase or a 2% increase on their present salary.

Janet is currently on a salary of £24 000 per year.

Which option should Janet choose? You **must show the calculations** that support your answer.

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[3]

3) Our recommended daily intake of food is often given in calories.

A small bag of 20 almonds provides 160 calories.

It is recommended that Joseff's diet should contain 1920 calories per day.

Joseff eats a large portion of almonds one day.
It is 25% of his recommended daily calories.

How many almonds does he eat?
You must show all your working. [5]

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4) 800 students from the UK and 300 students from Russia apply to attend a Summer Camp.
20% of the UK students and 30% of the Russian students are chosen to attend the camp.

What percentage of all the students who are chosen to attend the camp are from Russia?   [5]

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5) In 2014, the average amount of paper used per person in China was 74 kg, and in the USA it was 228 kg.

(a)   Insert a value, correct to 2 significant figures, in the following statement.   [2]

'In 2014, on average, each person in the USA used ……………… times as much paper as each person in China.'

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(b)   Between 55% and 60% of the paper used in the USA is recycled paper.
Insert values, correct to the nearest kg, in the following statement.   [2]

'In 2014, of the average 228 kg of paper used by each person in the USA,

between …………………… kg and …………………… kg of this was recycled paper.'

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6)
Loretta is paid in euros.
She is checking her tax bill for last year.

The tax rates last year were as follows:

- No tax on the first €3500 of earnings
- Earnings in excess of €3500 and up to €10 500: taxed at a rate of 25%
- Earnings above €10 500: taxed at a rate of 35%

Last year, Loretta's total earnings before tax were €34 500.

How much tax did Loretta pay in total?
You must show all your working.   [6]

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Tax paid = € ....

7)
Claudia was given the following information.

UK Income Tax

April 2013 to April 2014

taxable income = gross income – personal allowance

- personal allowance is £9205
- basic rate of tax: 20% on the first £32 255 of taxable income
- higher rate tax: 40% is payable on all taxable income over £32 255

During the tax year 2013 to 2014, Claudia's gross income was £52 250.

Calculate the total amount of tax that Claudia should pay.
You must show all your working. [6]

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8) Harley has saved £210 towards the cost of buying a laptop computer.
She earns £140 per week from a part-time job.
Harley can only afford to save 12% of the amount she earns each week.
She sees an advertisement, shown below, for the laptop computer she wants to buy.

£340

Only for the next 6 weeks ...

15% off the marked price!

Remember this offer is only valid for the next 6 weeks.

Will Harley be able to buy the laptop computer at the reduced price?
You must show all your working and give a reason for your answer.

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9)

You will be assessed on the quality of your written communication in this question.

Two years ago, a local council began renting out garden allotments.
The council owned 60 allotments of equal size.
The rent charged for each allotment was £150 per year.

In the first year, three-quarters of the allotments were rented.
In the second year, 80% of the allotments were rented.

Calculate the total amount of money the council collected in rent over these two years.
You must show all your working.   [9]

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10)
You will be assessed on the quality of your written communication in this question.

Small pot of daffodils	Large pot of daffodils
£1.20	

Marjorie spent £20 on daffodils and received 50p change.
She bought 10 small pots of daffodils.
The large pots of daffodils were 25% more expensive than the small pots of daffodils.
How many large pots of daffodils did she buy?
You must show all your working.   [8]

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11)

Adrian wanted to rent a holiday cottage in Scotland for his family.

He saw the following advertisement.

> **Rent a Scottish cottage!**
>
> £620 per week in August.
>
> Pay now and get 15% off.
>
> If you cancel, any money paid will be returned to you, less £60.

Adrian booked the cottage immediately and paid for one week in August.

The next day, Adrian saw an advertisement for a different Scottish cottage.

This cost £69 **per night** in August.

Would Adrian have saved any money if he had cancelled the booking for the first cottage and then rented the second cottage?

You must show all your working. [6]

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12)

You will be assessed on the quality of your written communication in this question.

When Liam has a bath he uses 150 litres of water.
His sister Tina claims that when she has a shower she uses 40% less water than Liam uses when he has a bath.

To test this claim, Tina made the following two observations.

- 1 litre of water comes out of the shower head every 10 seconds

- Tina spends 15 minutes in the shower.

Is Tina's claim correct?
You must show all your working.

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13)

Ms Franks needs a total of £1340 to buy a car.
She already has £584 in a savings account.
Ms Franks earns £1260 per month.
She adds 15% of her salary each month to her savings account.
How many months will it take Ms Franks to save enough money to buy the car?
You must show all your working.

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