

GCSE QUESTIONS WITH CLUES

Q1. NON-CALCULATOR

New Price

The normal price of a television is reduced by 30% in a sale. The sale price of the television is £350.
Work out the normal price of the television.

Original Price	<u>Percentage Multiplier</u> → × (100% - 30%) × 70% × 0.7	New Price 350
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(Total for Question is 3 marks)

Q2. NON-CALCULATOR

Jules buys a washing machine.

20% VAT is added to the price of the washing machine. Jules then has to pay a total of £600

What is the price of the washing machine with no VAT added?

Original Price	<u>Percentage Multiplier</u> → × (100% + 20%) × 120% × 1.2	New Price 600
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£

(Total for question = 2 marks)

Q3. NON-CALCULATOR

In a sale, the price of a cooker is reduced by 50% 0.5
 At the end of the sale, the sale price of the cooker is increased by 50% 1.5

Betty says,

"The cooker is now the same price as it was before the sale."

Is Betty correct? Explain why.

(Total for question = 2 marks)

Q4. NON-CALCULATOR

0.8

In a shop, all normal prices are reduced by 20% to give the sale price.

The sale price of a TV set is then reduced by 30%. 0.7

Mary says,

"30 + 20 = 50, so this means that the normal price of the TV set has been reduced by 50%."

Is Mary right?

You must give a reason for your answer.

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(Total for question = 2 marks)

Q5. CALCULATOR ALLOWED

Claire is making a loaf of bread. A loaf of bread loses 12% of its weight when it is baked.

Claire wants the baked loaf of bread to weigh 1.1 kg. Work out the weight of the loaf of bread before it is baked.

Original Price	$\begin{array}{l} \text{Percentage Multiplier} \\ \xrightarrow{\hspace{1cm}} \\ \times (100\% - 12\%) \\ \times 88\% \\ \times 0.88 \end{array}$	New Price 1.1
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..... kg

(Total for question = 3 marks)

Q6. CALCULATOR ALLOWED

In a sale, the price of a TV is reduced by 25%

A week later, the sale price of the TV is reduced by 15%

The price of the TV is now £293.25

What was the price of the TV before the sale?

Original Price	$\begin{array}{l} \text{Percentage Multiplier} \\ \xrightarrow{\hspace{1cm}} \\ \times (100\% - 25\%) \\ \times 75\% \\ \times 0.75 \end{array}$	Second Price	$\begin{array}{l} \text{Percentage Multiplier} \\ \xrightarrow{\hspace{1cm}} \\ \times (100\% - 15\%) \end{array}$	Final Price 293.25
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£

(Total for question = 3 marks)

Q7. CALCULATOR ALLOWED

A shop has a sale.

33.3% off

Microwave ovens
 $\frac{1}{3}$ off normal price

100% - 33.3% = 66.6%

Combination ovens
40% off normal price

100% - 40% = 60%

A microwave oven has a sale price of £90
A combination oven has a sale price of £84

Which of these ovens has the greater normal price?
You must show all your working.

Original Price × % Multiplier = Sale Price

(Total for question = 4 marks)

Q8. CALCULATOR ALLOWED

Katy invests £2000 in a savings account for 3 years.
The account pays compound interest at an annual rate of
2.5% for the first year
x% for the second year
x% for the third year

Compound Interest.

There is a total amount of £2124.46 in the savings account at the end of 3 years.

(a) Work out the rate of interest in the second year.

New = Original × $\frac{\text{Percentage}^{\text{time}}}{\text{Multiplier}}$ Year 3:

Year 1:

.....
(4)

Katy goes to work by train.

The cost of her weekly train ticket increases by 12.5% to £225

(b) Work out the cost of her weekly train ticket before this increase.

Original Price	<u>Percentage Multiplier</u>	New Price	
	× 100% + 12.5%		
	× 112.5%	225	
	× 1.125		

£.....

(2)
(Total for question = 6 marks)