

GCSE - Numeracy and Mathematics

Topic: Fractions and percentages, including reverse percentages

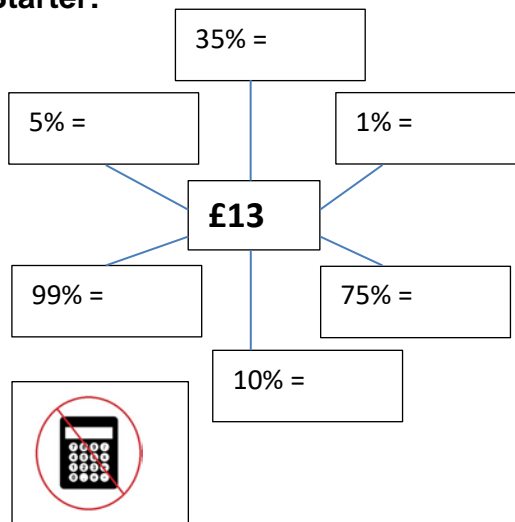
Tier:Intermediate

Grade:

E/B



Starter:



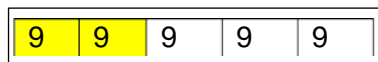
Top Tips!



Learn to use your calculator e.g. 15% o 480=72

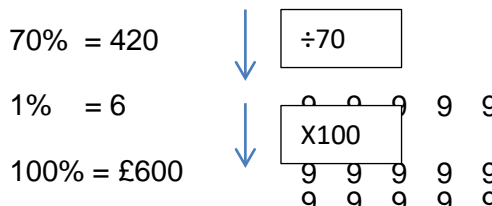
Divide the bottom then multiply the top to get a fraction of an amount

e.e. $\frac{2}{5}$ o 45



$45 \div 5 \times 2 = 18$

Start by writing the percentage you know when workin backwards e.g. the original price if a TV costs £420 after a 30% discount



Skills:

1. Calculate 27% of 184m
2. Calculate $\frac{3}{7}$ o 63
3. The price of a new car is £13 500. A car supermarket offers a discount of 14%. What is the new price?
4. A meal in a restaurant cost £61.10 including VAT at 17.5%. What was the total before adding VAT?

Examination Question:

9 9 9 9 9

2015 January Link - Methods U2 Higher Qu 5(b)

Give an example to show that increasing a measurement by 20%, then reducing this increased measurement by 20%, does not take you back to the original measurement. [3]

2015 January Unitised U1 Higher Qu 3

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]

Assessment for Learning

Video / QR code

GCSE - Numeracy and Mathematics
Topic: Fractions and percentages, including reverse percentages


Tier: Intermediate

Grade: E/B

Starter:


£13

35% = £4.55
 5% = £0.65
 1% = £0.13
 99% = £12.87
 75% = £9.75
 10% = £1.30



Top Tips!

Learn to use your calculator e.g. $15\% \text{ of } 480 = 72$



Divide the bottom then multiply the top to get a fraction of an amount
 e.e. $\frac{2}{5} \text{ of } 45$

9	9	9	9	9
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 $45 \div 5 \times 2 = 18$

Start by writing the percentage you know when workin backwards
 e.g. the original price if a TV costs £420 after a 30% discount

$70\% = 420$ $\div 70$
 $1\% = 6$ $\times 100$
 $100\% = \text{£}600$

Skills:

- Calculate 27% of 184m
£49.68
- Calculate $\frac{3}{7} \text{ of } 63$
£27
- The price of a new car is £13 500. A car supermarket offers a discount of 14%. What is the new price?
£11610
- A meal in a restaurant cost £61.10 including VAT at 17.5%. What was the total before adding VAT?
£52

Examination Question:

9 9 9 9 9

2015 January Link - Methods U2 Higher Qu 5(b)

Give an example to show that increasing a measurement by 20%, then reducing this increased measurement by 20%, does not take you back to the original measurement. [3]
£5

Increase by 20% = £5 x 1.2 = £6

Decrease by 20% = £6 x 0.8 = £4.80 ≠ £5

2015 January Unitised U1 Higher Qu 3

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]

$0.2 \times 800 = 160$ UK

$0.3 \times 300 = 90$ Russia

$\frac{90}{250} \times 100 = 36\%$

Assessment for Learning

Video / QR code

