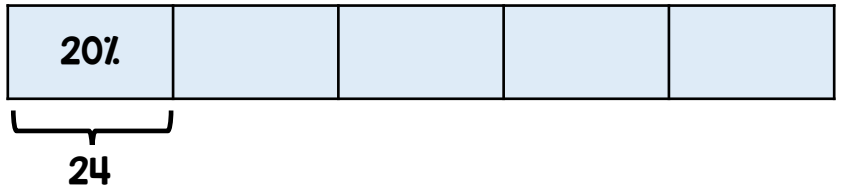
Summer Term Maths Year 10

Calculating reverse percentage problems

Day 4

Week 6

1 20% of a number is 24



Work out.

(a) 10% of this number. 12

(b) 40% of this number. 48

(c) 5% of this number. 6

(d) 35% of this number. 42

(e) What else can you find out?

Various. E.g. 100% is 120

2 If 60% of a number is 180, write 4 other percentages of this number. Use a bar to help you.

E.g. 10% is 30, 20% is 60, 30% is 90, 100% is 300

30	30	30	30	30	30	30	30	30	30

3 (a) If 10% of a number is 14.5, find 100% 145

(b) If 25% of a number is 320, find 100% 1280

(c) If 8% of a number is 22, find 100% 275

(d) If 30% of a number is 12, find 100% 40

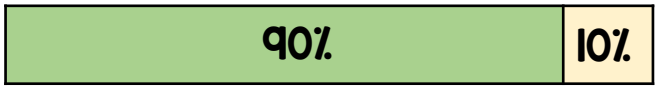
(e) Why are questions (c) and (d) more challenging?

8 and 30 aren't factors of 100

4 Dexter answers 90% of the questions on a test correctly.

He answers 54 questions correctly.

How many questions are on the test? 60



White Rose Maths

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Day 4

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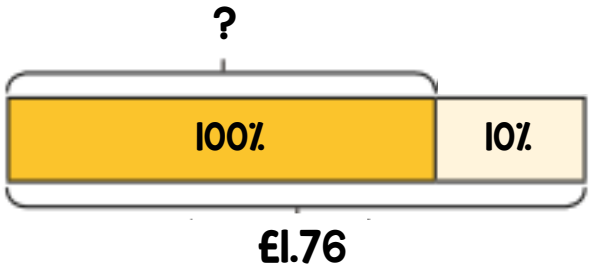
5 A shop increases the price of its milk by 10%. It now costs £1.76

How much did it cost before? £1.60



6 A shop has reduced all dresses by 30% and all accessories by 15%

(a) A dress now costs £49. How much did it cost before the sale? £70

(b) A bag now cost £34.00. How much did they cost before the sale? £40

7 Annie and Tommy are solving a problem.

A special pack of CobHob biscuits weighs 300 g and contains 20% extra free. How much does a normal pack of CobHob biscuits weigh?

Annie's working

20% extra means the normal pack is 80% of 300 g.

$0.8 \times 300 = 240$ g

Tommy's working

20% extra means 120% is 300 g.

So 10% is $300 \div 12 = 25$,

so 100% is $25 \times 10 = 250$ g

Who do you agree with?

Explain why.

Tommy. The original weight is 100%, so the new weight is 120%

White Rose Maths