

Problems of the Day 2020

Day 18

- 1 A can holds 330 ml of pop.
Pop is sold in packs of 6



Karl buys 12 packs of pop.
How many litres of pop does he have?

- 2 £240 is shared between 10 boys and 12 girls.

Each girl receives £15

How much money does each boy receive, if they each get the same amount of money?

- 3 Here is a sequence

2, 5, 9, 12, 2, 5, 9, 12, 2, 5, 9, 12, ...

What is the sum of the first 200 numbers in this sequence?

Explain your method.



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Day 19

- 1 The diameter of a 10p coin is 24.5 mm.
The diameter of a 5p coin is 18 mm.
Some coins are laid out end to end.



What is the distance marked b in the diagram?

- 2 Mrs Green bakes muffins.
She sells them in her shop.



- On Monday she bakes 200 and sells 70% of the them.
- On Tuesday she bakes twice as many muffins but has the same amount left.

What percentage of the muffins did she sell on Tuesday?



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Day 20

- 1 Complete these number sentences.

$$25 + 25 + 25 + 25 = \square \times 25$$

$$10 + 10 + 10 + 10 = \square \times 5$$

$$25 + 25 + 25 + 25 = \square \times 5$$

$$25 + 25 + 25 + 25 = \square \times 100$$

$$25 + 25 - 25 - 25 = \square \times 25$$

- 2 Louise is thinking of a 4-digit number.
Here are some clues to the number.

The number lies between 4,000 and 5,000

All the digits are different

The digit in the tens place is twice the digit in the thousands place

The sum of the digits is 24

The number is odd

What could Louise's number be?

