Problems of the Day *Day 18 Answers*

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?

Karl buys 12 packs of 6, so has 72 cans

The amount of pop that he has altogether must be 72 x 330ml = 23760ml

The question asks us how many litres he has, so we must convert our answer to litres.

1000ml = 1 litre

23760 ÷ 1000 = 23.760

So 23760ml = **23.76 litres**

2 £290 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?

12 girls receive £15 each

The total amount received by girls is 12 x £15 = £180

The amount that the boys received in total was £290 – £180 = £110

If £110 is shared equally between 10 boys, they receive £11 each

Each boy receives £11

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.

The pattern repeats after every 4 numbers

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

The sum of each group of 4 numbers is 2+5+9+12 = 28

There are 50 groups of 4 in 200 because 200÷4=50

The sum of the first 200 numbers must be 50 x 28 = **1400**