

Thinking problems KS3

Set 2

QUESTION 1

Jenny bought 7 t-shirts, one for each of her seven brothers, for £9.95 each. The cashier charged her an additional £13.07 in sales tax. She left the store with a measly £7.28. How much money did Jenny start with?



QUESTION 2

If you saved
£2.00 on January 1,
£4.00 on February 1,
£6.00 on March 1,
£8.00 on April 1,
and so on, how much money
would you save in one year?



QUESTION 3

I saw a 4 digit number the other day but I can't remember it...but
1) I remember seeing a number 1.
2) The 2nd digit, I remember is 3 times the 1st digit.
3) The 4th digit is 4 times the 3rd digit
4) Finally, I recall the number 2 is sitting in the thousands' place.
What was the number?

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QUESTION 4

Ethel made a list of all the whole numbers between 1 to 100. How many times did she write the number 2?

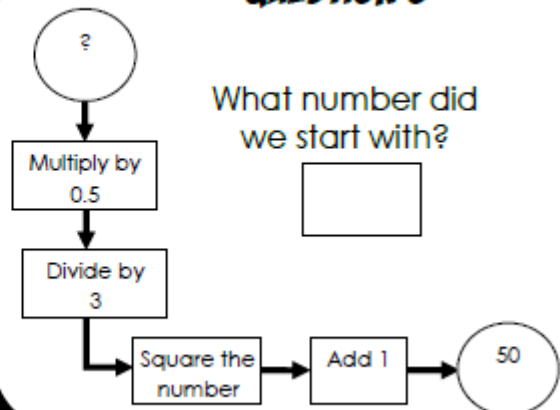
1, 2, 3, 4...

QUESTION 5

The peel of a banana weighs about $\frac{1}{8}$ of the total weight of the banana. If you buy 3 kg of bananas at 1kg for £0.96, how much are you paying for the banana peel?



QUESTION 6



QUESTION 7

The number of hours that were left in the day was $\frac{1}{3}$ of the number of hours already passed. How many hours were left in the day?



QUESTION 8

Mary and Jason were making propellers for their wooden helicopters. Mary put a number on her propeller and noticed that when she turned the propeller she had the same number.



Jason was trying to think of a number that he could put on his that had the same rotational symmetry (looks the same turned upside down). What is the next larger number that has this property?

QUESTION 9

If you saved £2.00 on January 1, £4.00 on February 1, £8.00 on March 1, £16.00 on April 1, and so on, how much money would you save in one year?



QUESTION 10

15			12
	10	9	
			11
3			0

Can you solve this magic square?

Put the remaining numbers from 0 to 15 in the 16 small squares. The sum of the four numbers in each row, column and two diagonals must be 30.

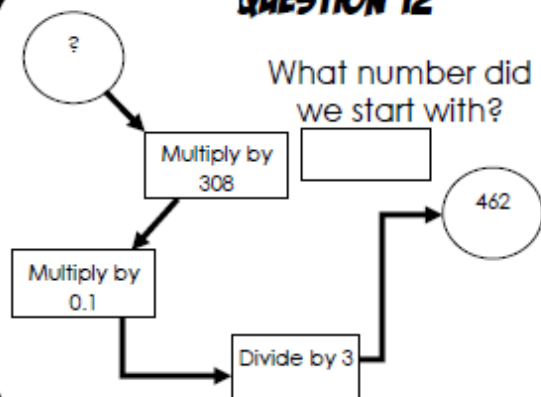
QUESTION 11

The average monthly rainfall for 6 months was 28.5mm. If it had rained 1mm more each month what would the average have been?



QUESTION 12

What number did we start with?



QUESTION 13

Elmer Fudd decided to grow a garden so he could make salad. He wants to make it 10.1m long and 4.2m wide. However, in order to avoid Bugs Bunny from entering his garden he must make a fence surrounding the garden. He decides to make the fence 11.2m long and 5.0m wide. What is the area between the fence and the garden?



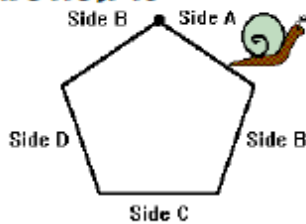
QUESTION 14

A ferryboat is full when it has ten cars on board. It is also full when it has six trucks on board. The ferryboat never carries cars and trucks at the same time. The ferryboat made five trips across the river and was full on each trip. It carried a total of 42 cars and trucks across the river. How many cars did the ferryboat carry altogether in the five trips?



QUESTION 15

**ONLY ONE
GUESS
ALLOWED!**



Shane the Snail started at the dot. What side will he be on when he has crawled $\frac{13}{20}$ of the distance around the regular pentagon of equal sides?

QUESTION 16

I'm thinking of two numbers.
Their greatest common factor is 6.
Their least common multiple is 36.
One of the numbers is 12.
What is the other number?

QUESTION 17

Dave gave Charlotte half of his toy cars. Charlotte gave Johnnie half of the cars she received from Dave. Johnnie kept 8 of those cars and gave the remaining 10 to Dana. How many cars did Dave give Charlotte?



QUESTION 18

How many triangles are in this figure?

