Maths
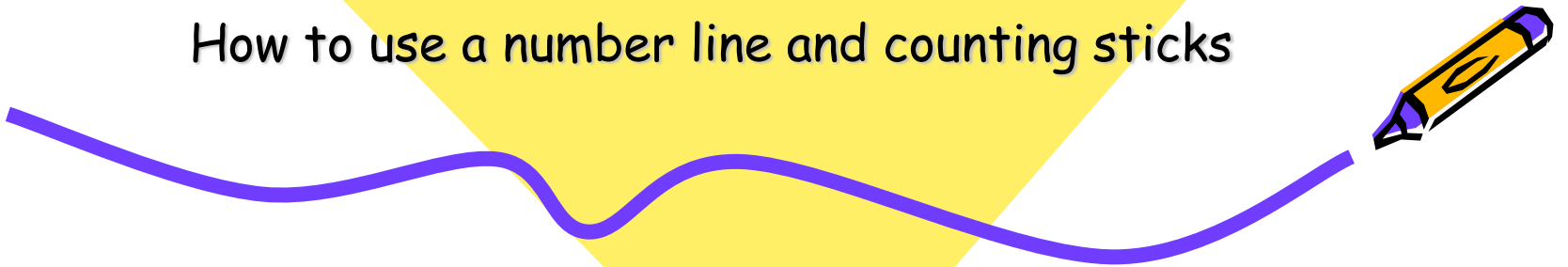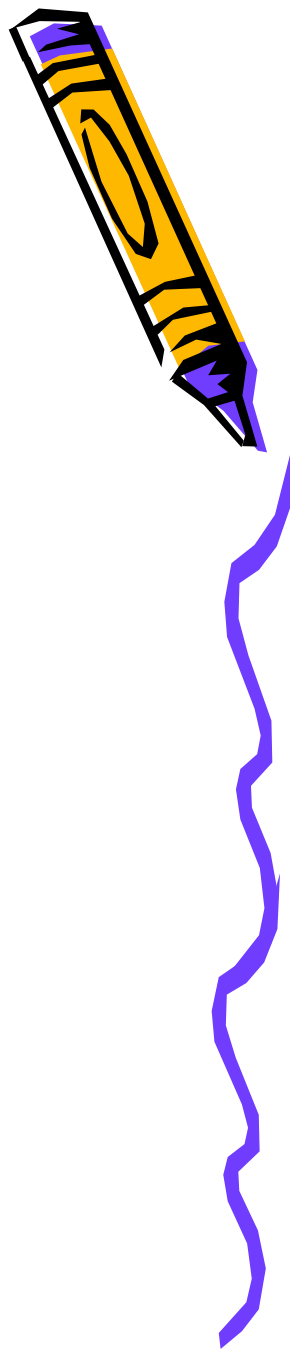
How to use a number line and counting sticks
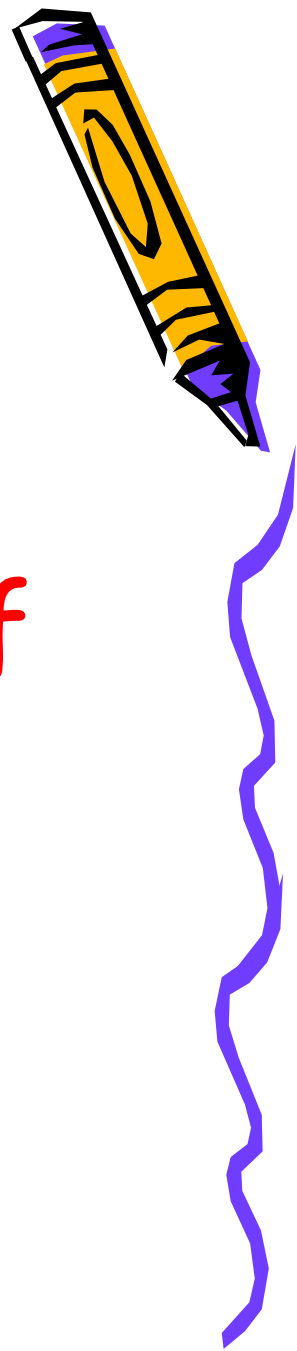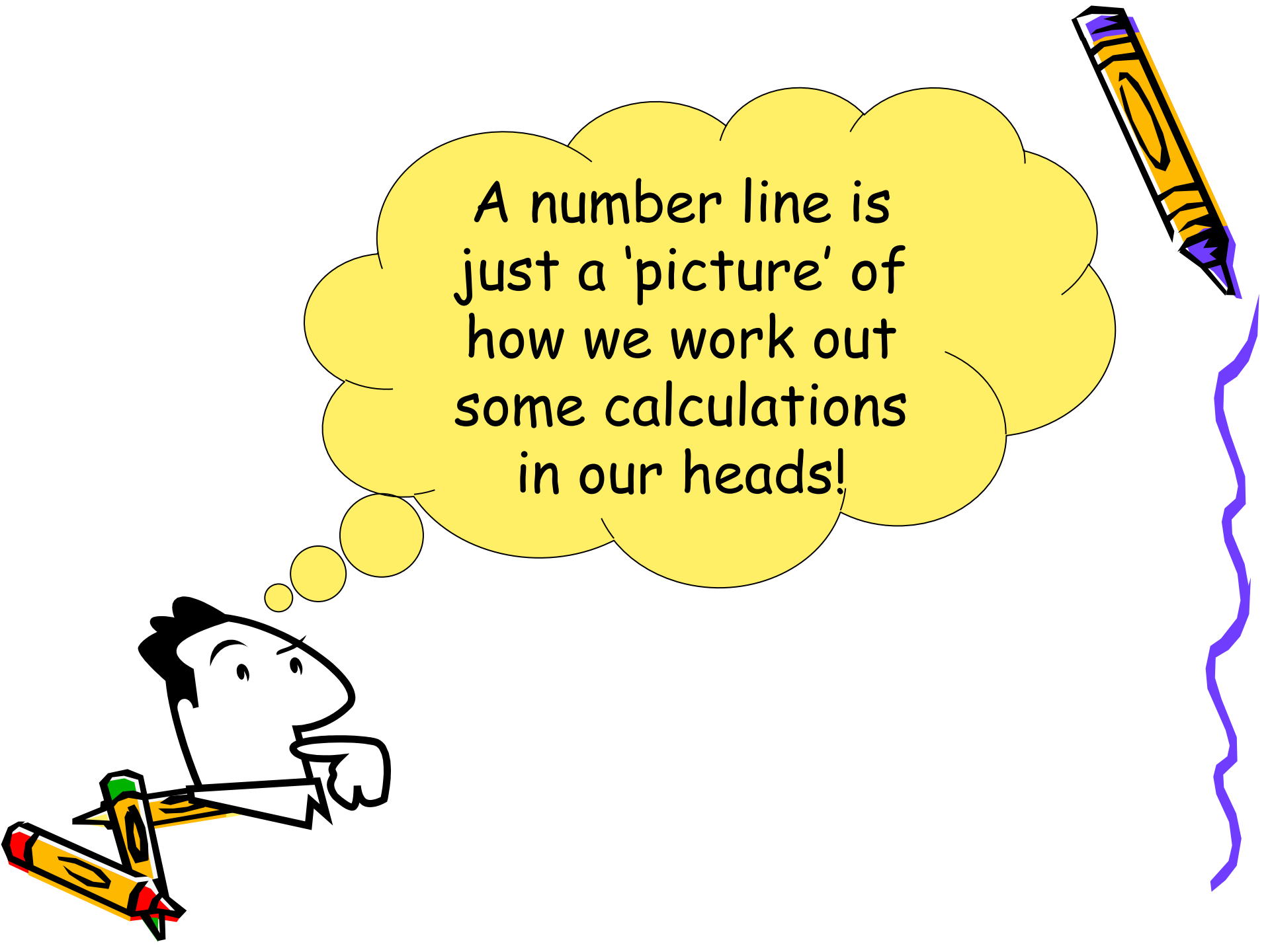
Maths

Is part of our everyday lives

Progression in the use of the number line

A farmer has 13 apples on one tree and 11 apples on another.

How many apples does he have altogether?

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8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

13 apples and 11 apples
Equals 24 apples

13 + 11 = 24

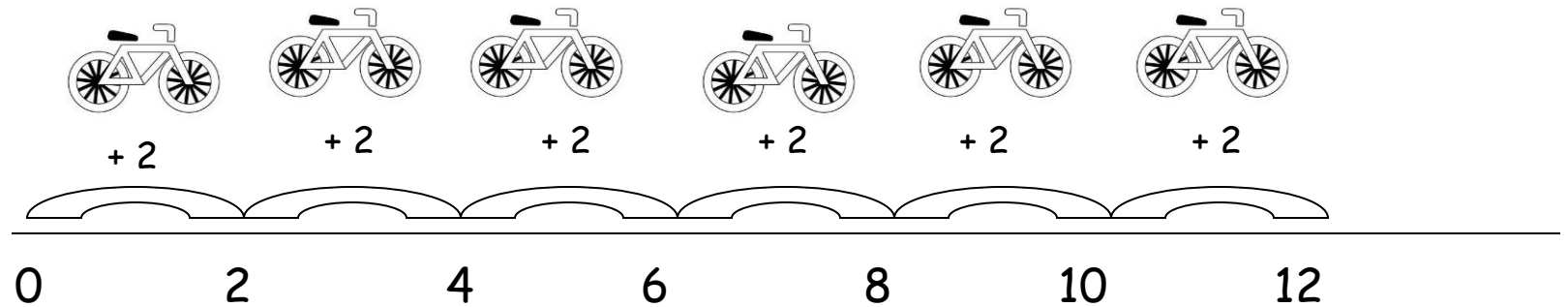A farmer has 18 apples on a tree and he picks 3.

How many apples will be left?

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

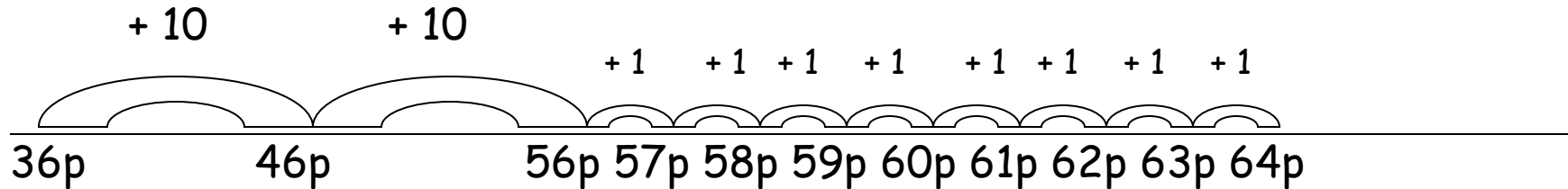18 apples take away 3 apples
Equals 15 apples

18 - 3 = 15

If I have 6 bicyles, how many wheels would there be?

+ 2   + 2   + 2   + 2   + 2   + 2

0   2   4   6   8   10   12

2 + 2 + 2 + 2 + 2 + 2 = 12 wheels

I have 36p and my mum gives me 28p pocket money.

+ 10   + 10
                        + 1   + 1   + 1   + 1   + 1   + 1   + 1   + 1

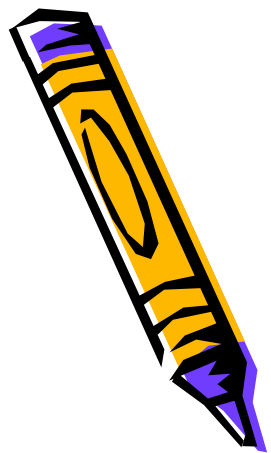36p   46p   56p 57p 58p 59p 60p 61p 62p 63p 64p

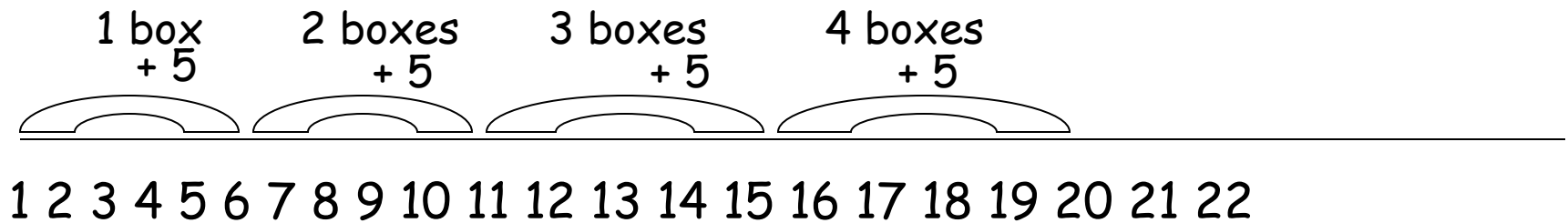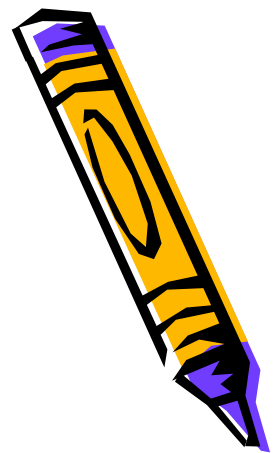How much money do I have altogether?

36p + 28p = 64p
36 + 10 = 46
46 + 10 = 56
56 + 8 = 64p

There are 5 cakes in one box. How many cakes in 4 boxes?

There are 5 cakes in one box.
How many cakes in 4 boxes?

| 1 box + 5 | 2 boxes + 5 | 3 boxes + 5 | 4 boxes + 5 |

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
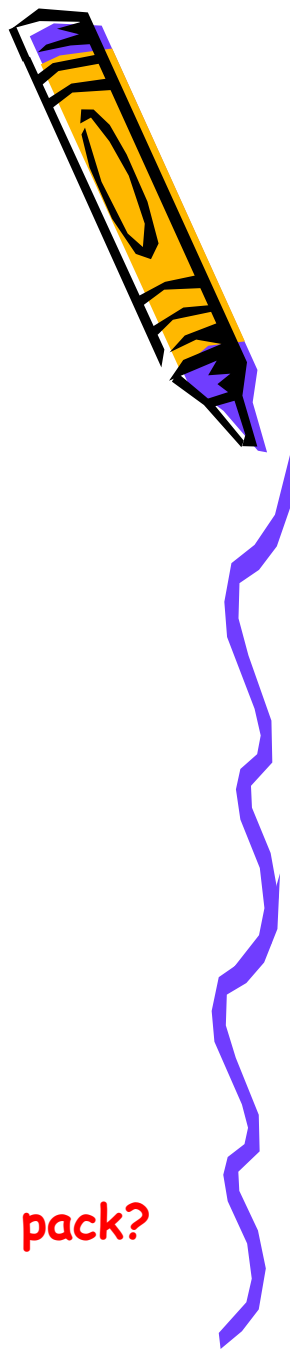
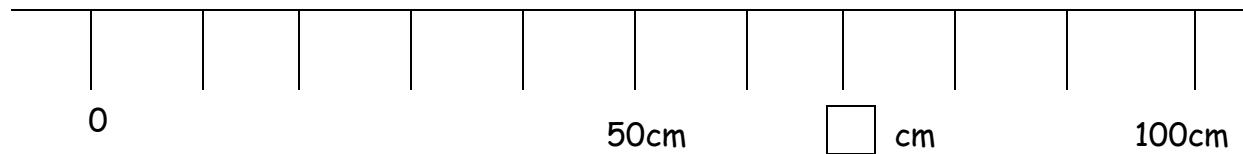5 cakes in each box.
4 boxes equals 20 cakes altogether.

$5 \times 4 = 20$

I have 20 cakes,
I can fit 5 cakes in a box.
How many boxes will I need?

20 ÷ 5 = 4 boxes

What if I had 22 cakes to pack?

What is the missing measurement?
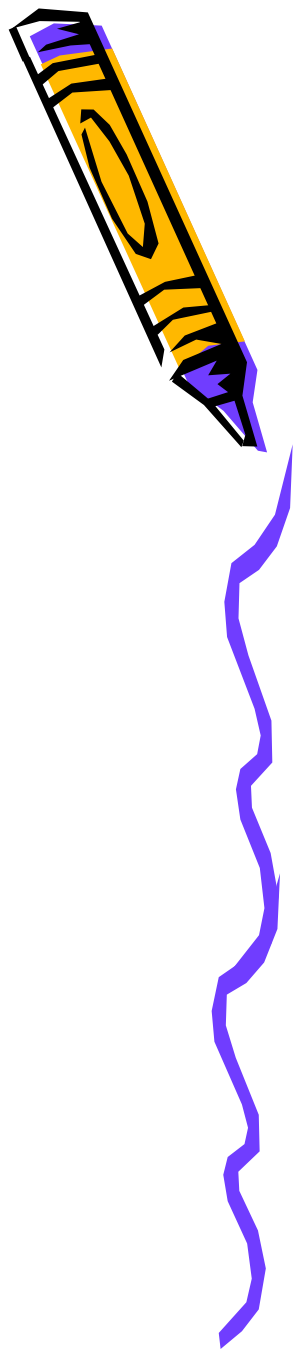
0   50cm   ☐ cm   100cm

There are 38 fiction books and 55 non-fiction books in the library.

How many books are there in the library?

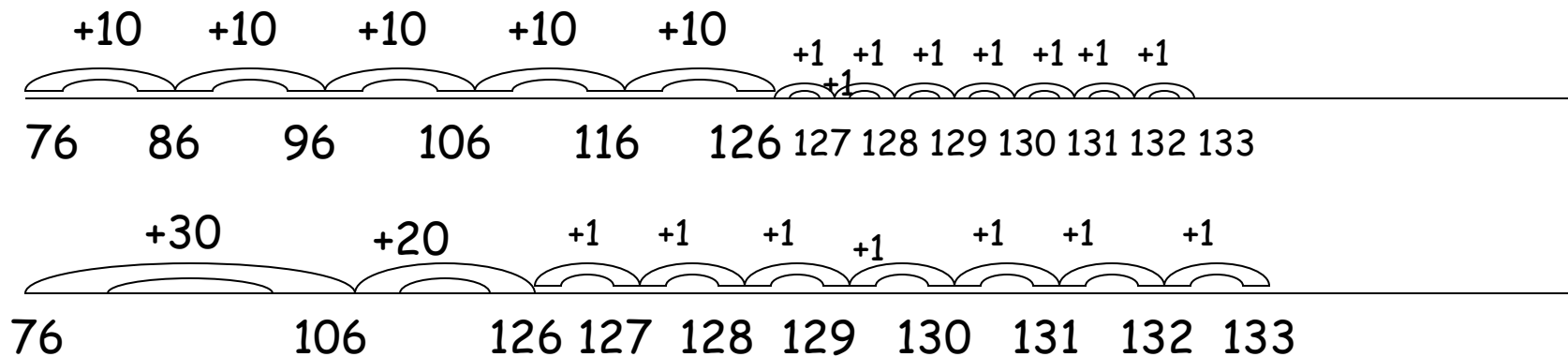There were 72 books in the library.
Children borrowed 24 of them.

How many books were left in the library?

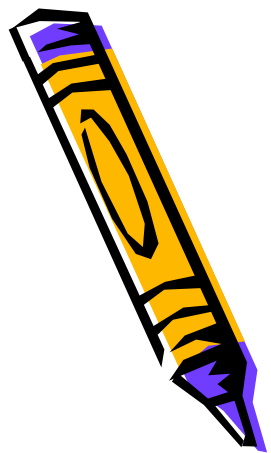There are 76 marbles in one jar and 57 marbles in another jar.

How many marbles are there altogether?

+10	+10	+10	+10	+10	+1 +1 +1 +1 +1 +1 +1 +1
76	86	96	106	116	126 127 128 129 130 131 132 133

+30	+20	+1 +1 +1 +1 +1 +1 +1
76	106	126 127 128 129 130 131 132 133

Multiplication

3 x 7

0   7   14   21

7   14   21

Division

I have 48 cakes.
I can fit 6 cakes in a box.
How many boxes will I need?

1 box
- 6

42   48

Have a go!

The many uses of a number line

Imagine:

A similar situation where the pupils are finding Problem solving with decimals (money and time) difficult to access.

The train is due to arrive at 6.45am but is 37 minutes late. What time does it arrive?

How might a number line help?