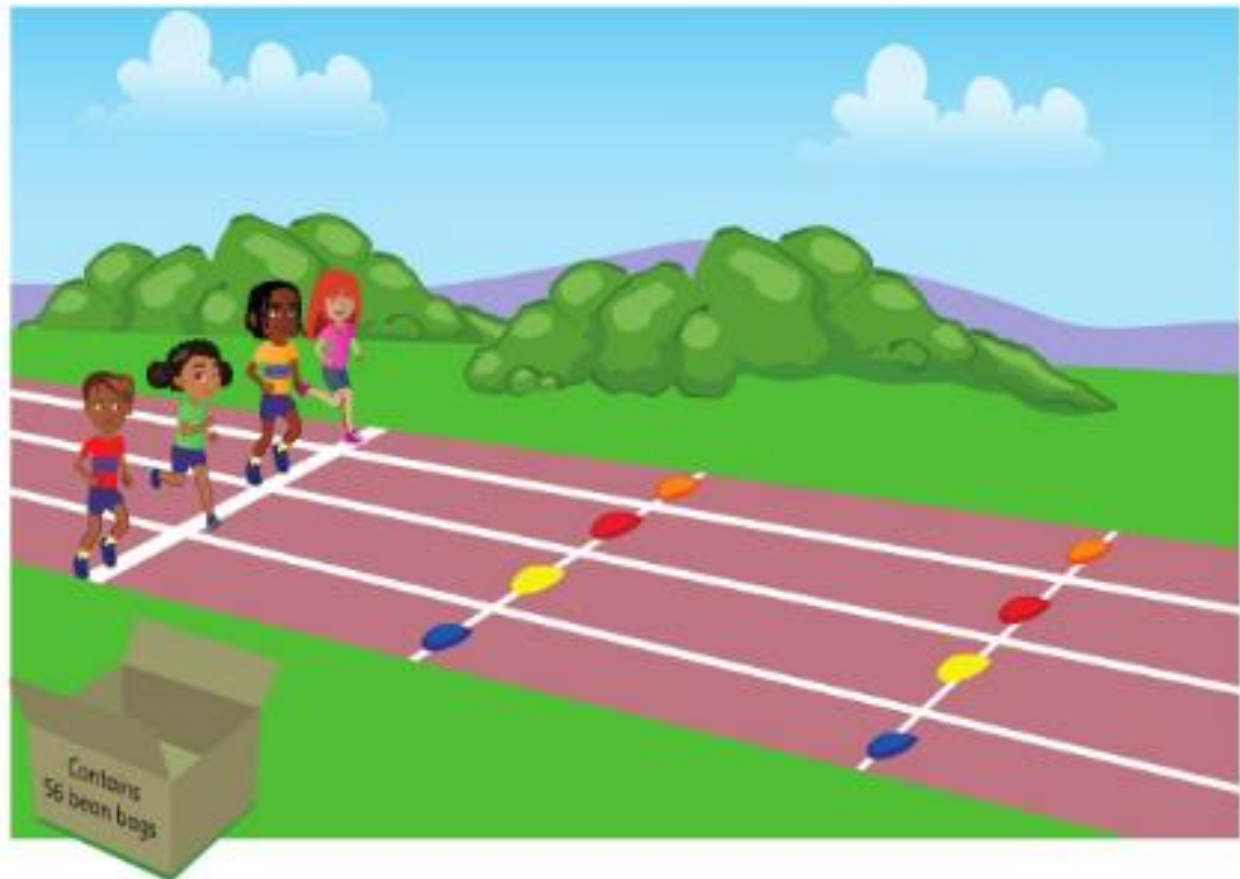# Thursday - maths

Power up

1 **a)** 56 bean bags have been used. There is an equal number of bean bags in each lane. How many bean bags are in each lane?

b) There is a bean bag every 10 metres in each lane. How far is the furthest bean bag away from the start line?

Power up answer

a) There are 56 bean bags altogether.
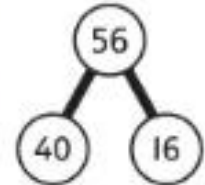
There are 4 running lanes.

$56 \div 4 = ?$

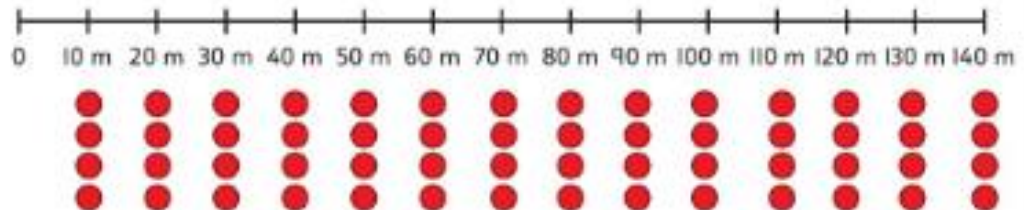

$40 \div 4 = 10$

$16 \div 4 = 4$

So, $56 \div 4 = 14$

There are 14 bean bags in each lane.

b) The first bean bag is 10 metres away from the start line.
The bean bags are then 10 metres apart.

0   10 m   20 m   30 m   40 m   50 m   60 m   70 m   80 m   90 m   100 m   110 m   120 m   130 m   140 m

There are 14 bean bags in each lane.

There is one bean bag every 10 metres.

$14 \times 10 = 140$

The furthest bean bag is 140 metres away from the start line.

I thought the answer was 130 metres. I put the first bean bag at the start.

LO: To divide using an informal method

Remember that divide means to share one number into another.

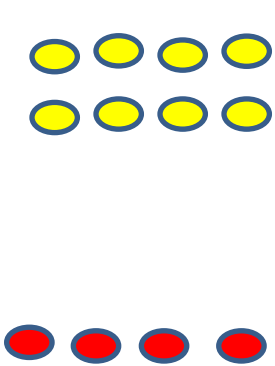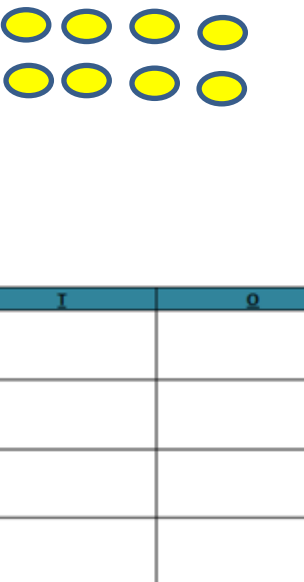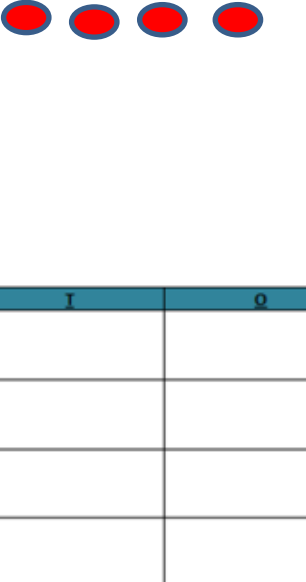If you wanted to work out this calculation, $84 \div 4$ what methods could you use?

LO: To divide using an informal method

$$84 \div 4 =$$

Today, we will be using the grid below to support us.

First of all build your number in step 1.

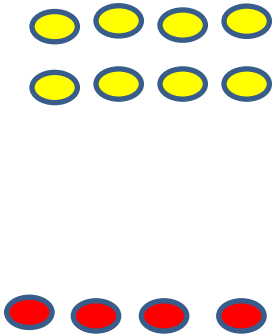E.G 84 has 8 tens (so we'll draw 8 yellow dots) and 4 ones (so we'll draw 4 red dots)

Step 1 Build the Number	Step 2 Share the tens	Step 3 Share the ones

LO: To divide using an informal method

84 ÷ 4 =

Next, we will divide our tens into the 4 rows below, one at a time.

There are 2 tens in each row, so 80 ÷ 4 = 20.

LO: To divide using an informal method   **84 ÷ 4 =**

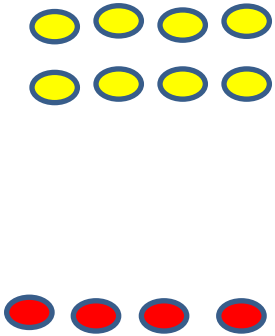Finally, we will divide our ones into the 4 rows below, one at a time.

There is 1 one token in each row, so 4 ÷ 4 = 1.

LO: To divide using an informal method

Your final answer is the amount in one row, so 2 tens and 1 one will equal 21.

84 ÷ 4 = 21

LO: To divide using an informal method

Success Criteria:

- Partition the 2-digit number
- Divide the tens
- Divide the ones
- Exchange tens to ones if needed

LO: To divide using an informal method

Work out the following calculations using this method of partitioning.

Fluency

1. 84÷2
2. 69÷3
3. 88÷4
4. 96÷3
5. 91÷7
6. 75÷5
7. 96÷6
8. 68÷4

Step 1 Build the Number	Step 2 Share the tens		Step 3 Share the ones	
	T	O	T	O

LO: To divide using an informal method

1. 84÷2=42

2. 69÷3=23

3. 88÷4=22

4. 96÷3=32

5. 91÷7=13

6. 75÷5=15

7. 96÷6=16

8. 68÷4=17

LO: To divide using an informal method Reasoning

Rosie writes,

$85 \div 3 = 28$ r 1

She says 85 must be 1 away from a multiple of 3
Do you agree?

---

37 sweets are shared between 4 friends. How many sweets are left over?

Four children attempt to solve this problem.

- Alex says it's 1
- Mo says it's 9
- Eva says it's 9 r 1
- Jack says it's 8 r 5

Can you explain who is correct and the mistakes other people have made?

LO: To divide using an informal method
Reasoning answer

I agree, remainder 1 means there is 1 left over. 85 is one more than 84 which is a multiple of 3

Alex is correct as there will be one remaining sweet. Mo has found how many sweets each friend will receive. Eva has written the answer to the calculation. Jack has found a remainder that is larger than the divisor so is incorrect.

LO: To divide using an informal method

Problem Solving

Whitney is thinking of a 2-digit number that is less than 50

When it is divided by 2, there is no remainder.

When it is divided by 3, there is a remainder of 1

When it is divided by 5, there is a remainder of 3

What number is Whitney thinking of?

LO: To divide using an informal method

Problem Solving answers – how did you do?

Whitney is thinking of 28