Tuesday 12th November 2019

Maths

Parent Information Session

Mr Mordue & Mr Taylor

Maths Leaders

Aims

- Provide you with a greater understanding of how Maths is taught in our school.
- Show you the progression of calculation methods through KS1 and KS2.
- Enable you to see the types of different questions children are asked when assessing learning in Maths.
- Help you understand how you can help your child at home with their Maths.

Maths in KS1

Contents

- Calculation methods used and progression through the key stage.
- Mental arithmetic: Number bonds, times tables and mental strategies.
- Problem solving / Using and Applying.
- How you can help at home.

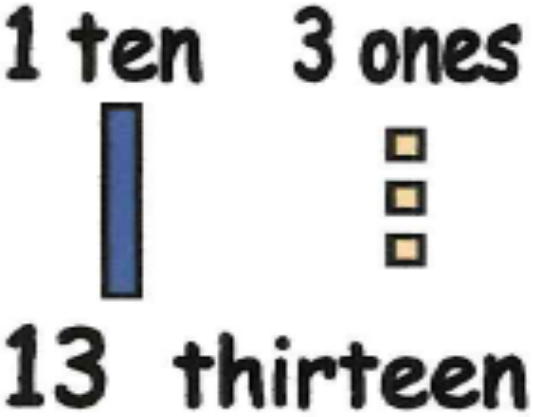
KS1: The Basics

- Recognise, read and write numbers:

Three  3

KS1: The Basics

- Understand place value:



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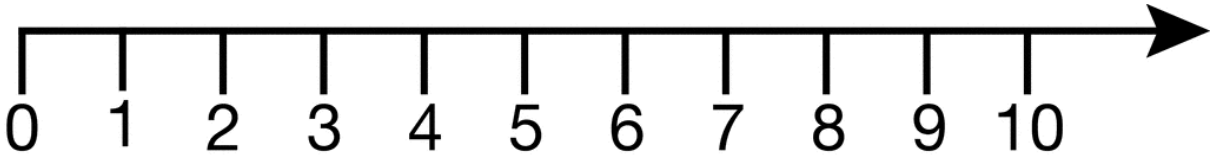
KS1: The Basics

- Put numbers in order:



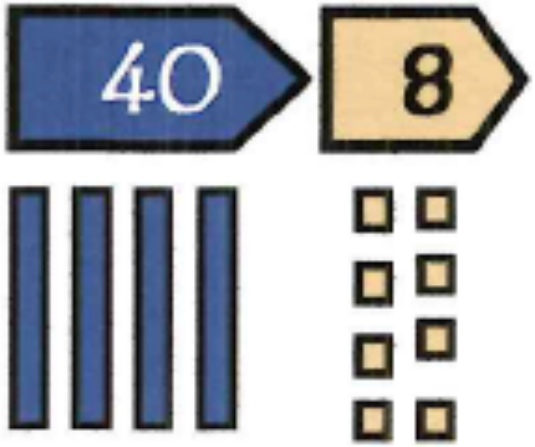
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

KS1: The Basics

- Count forwards and backwards in same size steps

KS1: The Basics

- Partition a number and recombine it



KS1 Calculation Methods

Addition

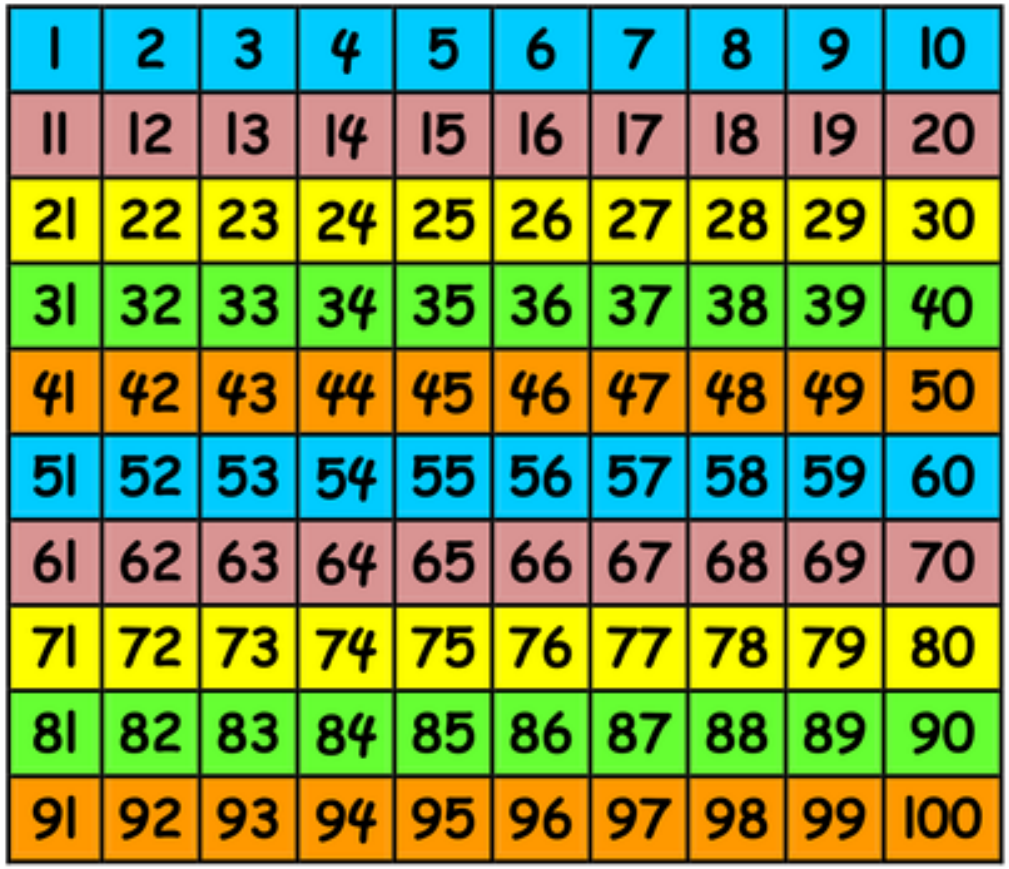
Addition – Practical resources

- Dienes blocks
- Counters/multi-link cubes
- Toys

4 + 3 = 7

Addition – Practical resources

- 100 square
- 23 + 5 = 28



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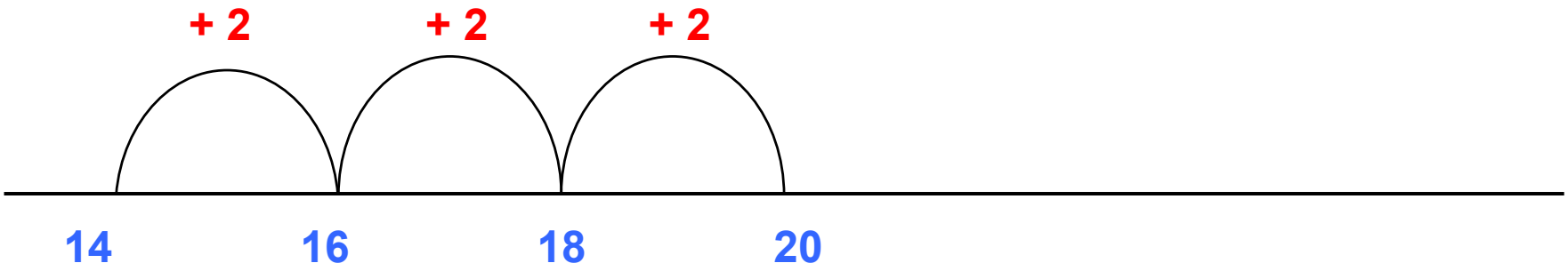
Addition – Practical resources

- Number line: Starting with single 'jumps' and then moving onto jumps of 2, 5, 10



14 + 6 = 20

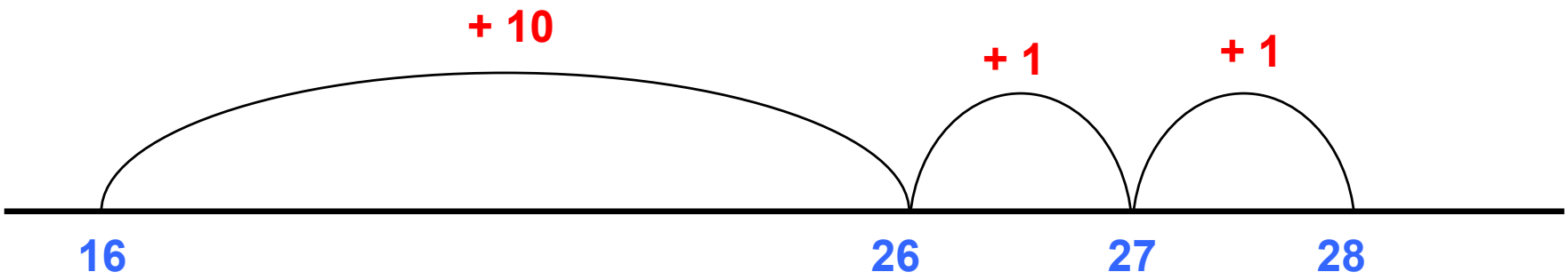
Addition – Partitioning for 2 digit + 2 digit

- Number Line

16 + 12 = 28

12 is partitioned into T + U

12 = 10 + 2



Addition – Written Methods

Partitioning

- Partitioning means splitting the number into the tens and units. It is **essential** that their place value is **secure**.

56 + 32 = **50 + 30 = 80** (partition tens)

6 + 2 = 8 (partition units)

80 + 8 = 88 (add tens and units answer together)

Addition – Written Methods

Column method

- Year 2

a) 34 + 22 = 56

b) 32 + 15 = 47

Subtraction

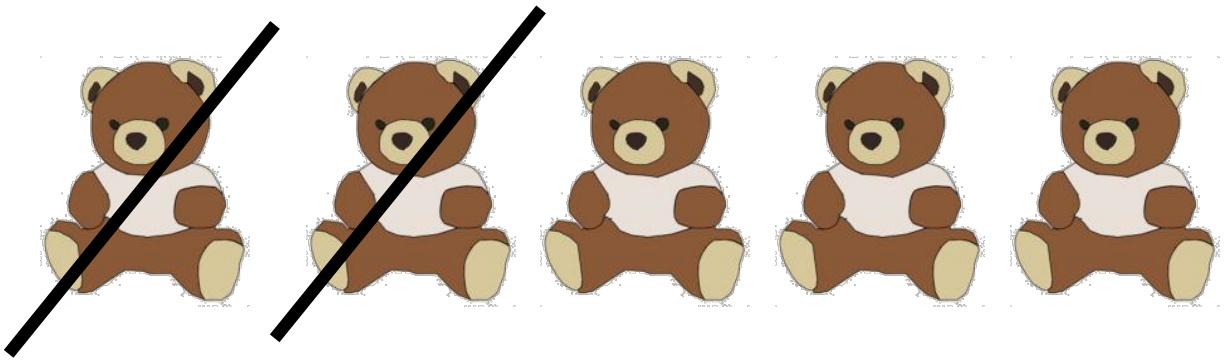
Subtraction

9-4=5

Subtraction – Practical Resources

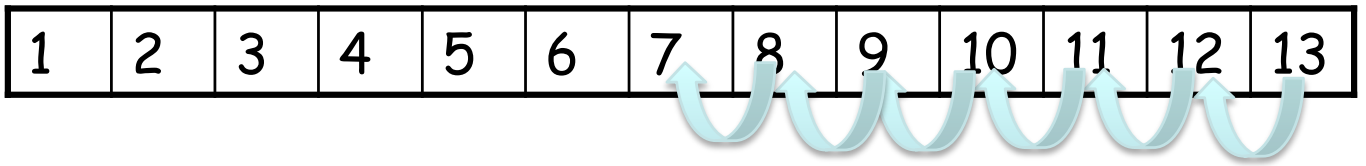
- Dienes blocks
- Counters
- Toys
- Pebbles

5 – 2 = 3



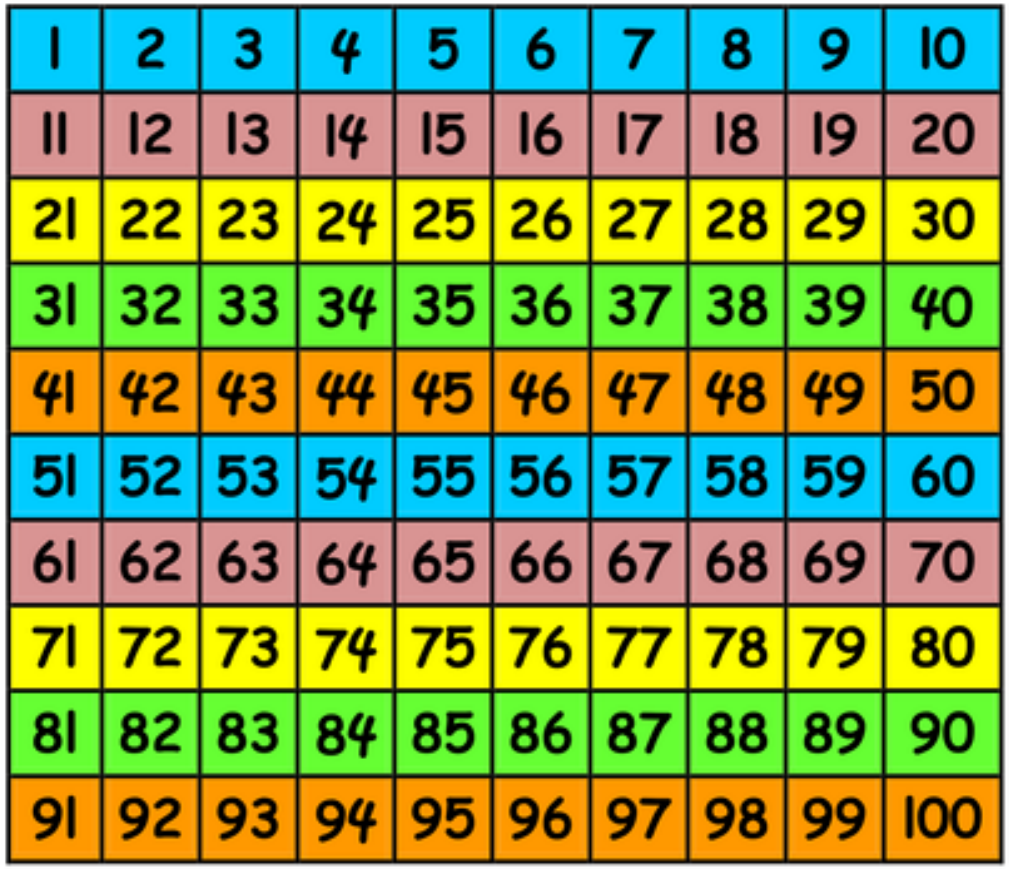
Subtraction – Practical Resources

- Number line
- 13 – 6 = 7



Subtraction – Practical Resources

- 100 square
- 38 – 5 = 33



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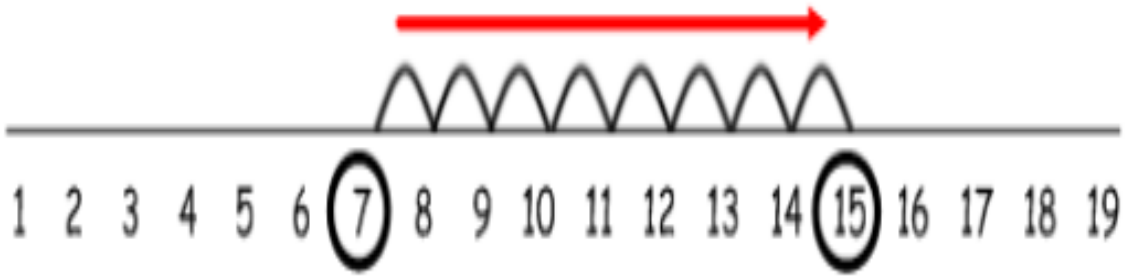
Subtraction – Finding the difference

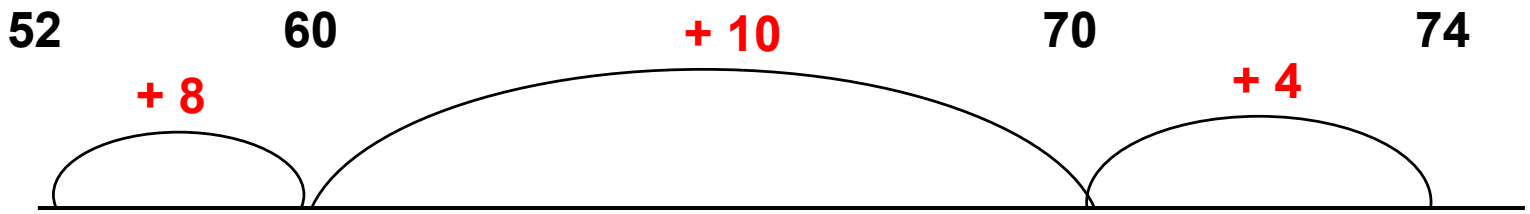


15 - 7 = 8

Subtraction – Counting On

Finding the difference

- Count on from the smallest to the largest once again bridging through ten or a multiple of ten.



74 – 52 = 8 + 10 + 4

= 22

Subtraction – Written Methods

Column method

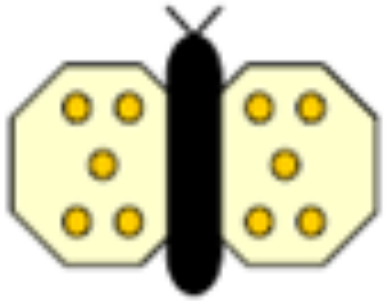
- Year 2

	3	8			4	8
-	2	7		-	3	6
	1	1			1	2

Multiplication

Multiplication – Doubling

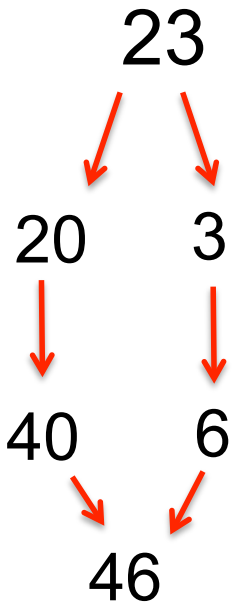
$5 + 5 = 10$



Multiplication – Doubling

Moving onto partitioning to double numbers

Double 23 = 46

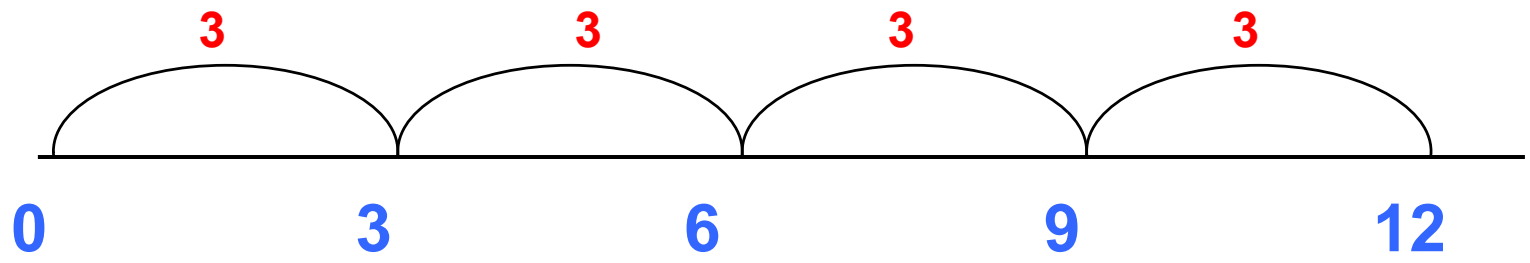


Multiplication – Practical Resources/Repeated Addition

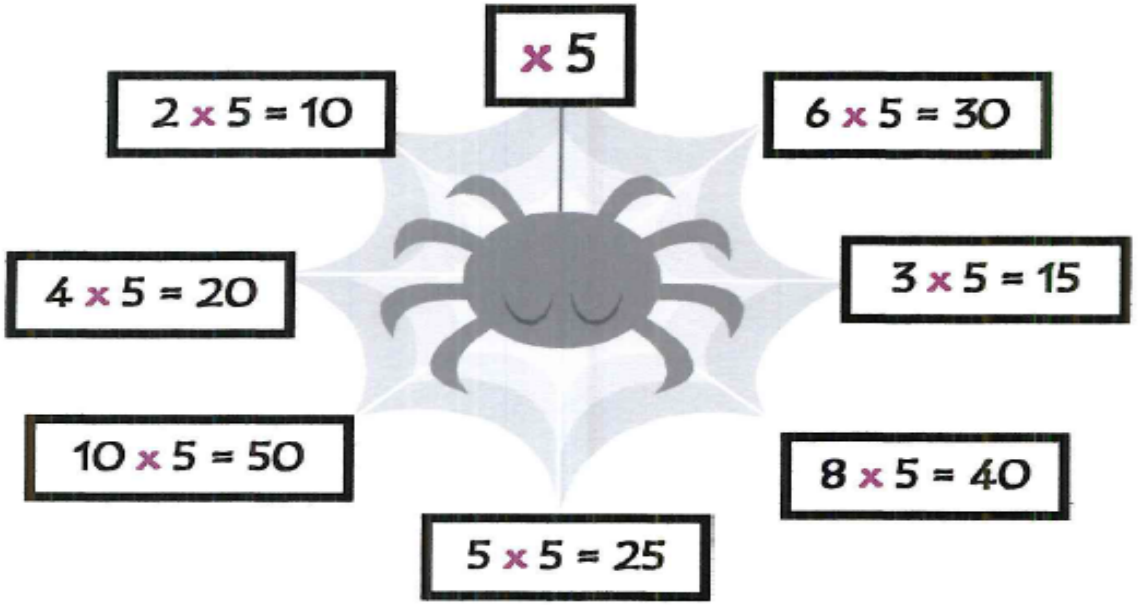
3 x 5 = (3 groups of 5) = 5 + 5 + 5 = 15

Multiplication – Number lines

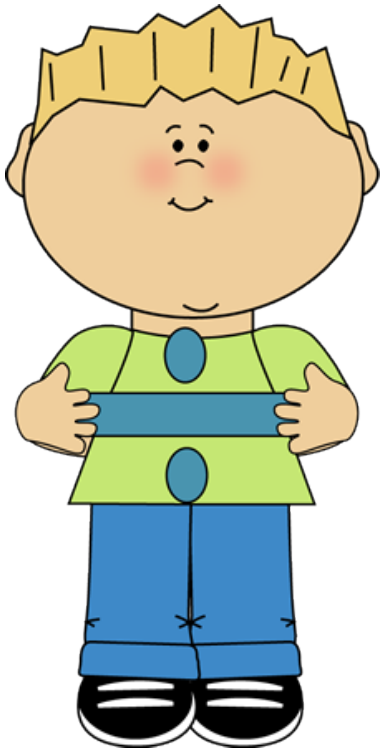
- Children use the number line and the idea of repeated addition to count in groups.
- 4 X 3 = 12



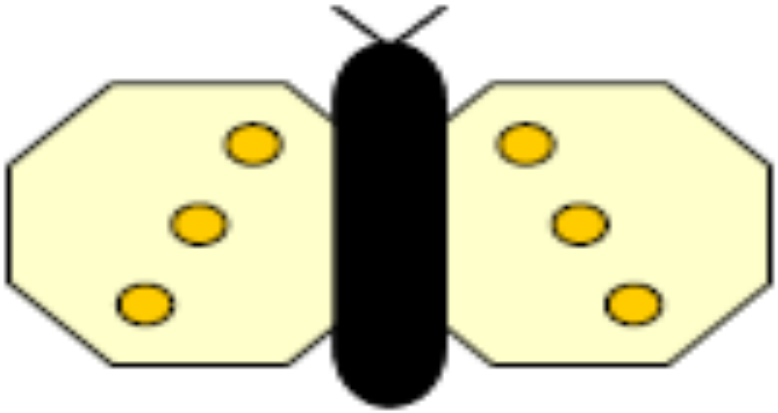
Multiplication – Times Tables



Division



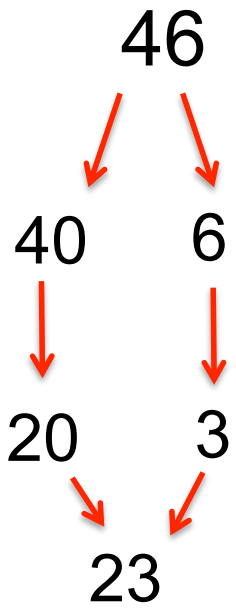
Division – Halving



Division - Halving

Moving onto partitioning to halve numbers

Halve 46= 23



Division as 'sharing' – Practical resources

15 ÷ 3 = 15 'shared between' 3 = 5

Division as 'grouping'

The number in the group is known but how many groups is unknown.

How many 3s in 12?

We need to count the number of groups.

Division – Corresponding times table facts

From here we get the children to use their times tables knowledge to work out the inverse operation…

20 ÷ 5 = 4

Children need to use their knowledge of 5 times table to use the corresponding fact…

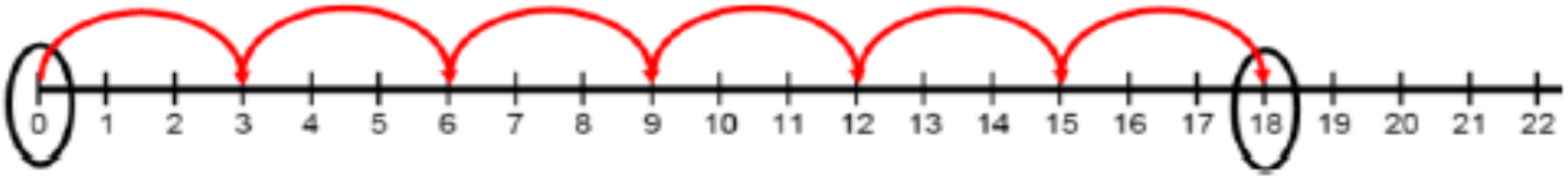
4 x 5 = 20 so 20 ÷5 = 4

Division – Number line

18 into groups of 3 = 6 groups

18 into jumps of 3 = 6 jumps

18 ÷ 3 = 6

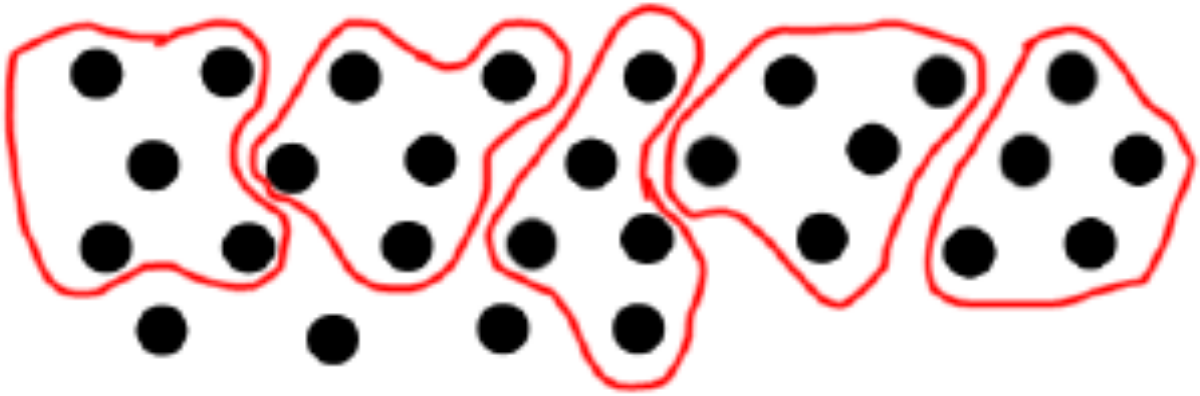


Division – with remainders

28 children into groups of 5

How many children left without a group?

28 ÷ 5 = 5 r 3

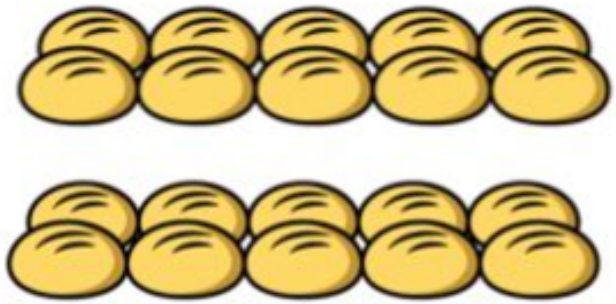


Using and Applying

- Understanding mathematical vocabulary
- Applying strategies taught
- Reasoning about Maths and explaining answers

Using and Applying

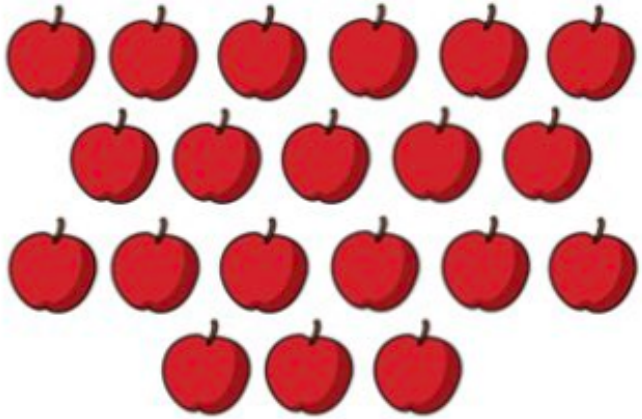
Sam has these bread rolls to sell.



He sells 14 of the bread rolls.

How many does he have left?

Lily has 20 apples.



She packs the apples into bags of 4

How many bags does she need?

White Rose Maths

Using and Applying

5b. Seth is trying to calculate the number of seeds in a packet.

Seth knows the seeds are planted in equal rows of 5. He knows there are 8 equal rows.

How many seeds were in the packet at the start? Show your working.

30 sweets are shared equally between 5 people.

Devon says,

They will get 7 sweets each.

Chloe says,

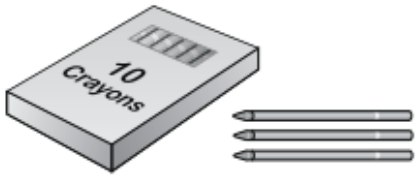
They will get 6 sweets each.

CLASSROOM Secrets

Who is correct? Explain your reasoning by showing your working out.

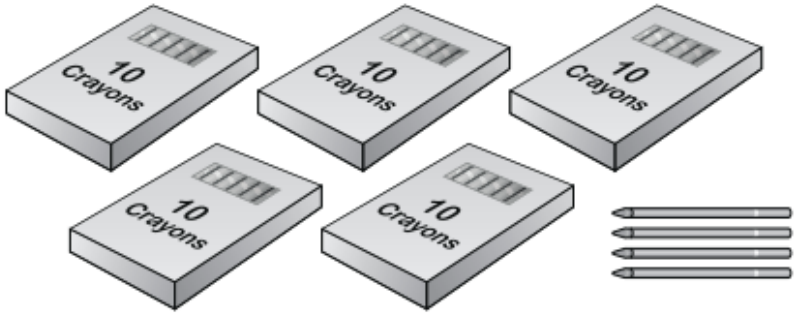
Using and Applying

13 Ben has 13 crayons.

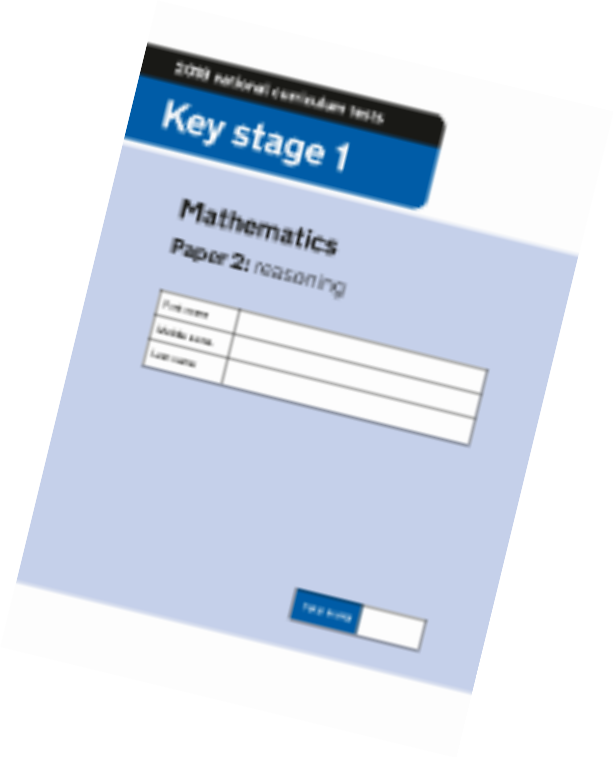


Here are Abdul's crayons.

How many crayons does Abdul have?



crayons



How you can help at home

- Lots of practice – in the car, online games, counting objects at home
- Playing games – cards, snakes and ladders, dominoes
- Cooking for measurements
- Telling the time

KS1 Online Help

Maths Games
www.maths-games.org

ICT Games
www.ictgames.com

Maths Bingo
www.abcya.com

Crickweb
www.crickweb.co.uk

Numberjacks Video clips and Songs
www.youtube.com

Top Marks
www.topmarks.co.uk