

Year 2
Maths Workshop

23.1.25

Welcome and aim of the session

- Overview of the expected standards for Number within the mathematics curriculum.
- Teaching methods and strategies employed at school for all 4 operations.
- Practical 'have a go' activities'.
- How you can support your children at home.
- Opportunities to answer questions.

Not forgetting the other areas that are taught and assessed to be expected for Year 2...

Fractions

Identify a quarter, third, half and two quarters and three quarters of a number or shape and know that all parts must be equal parts of the whole

Measures

Use different coins to make the same amounts

Read the time on a clock to the nearest 15 minutes

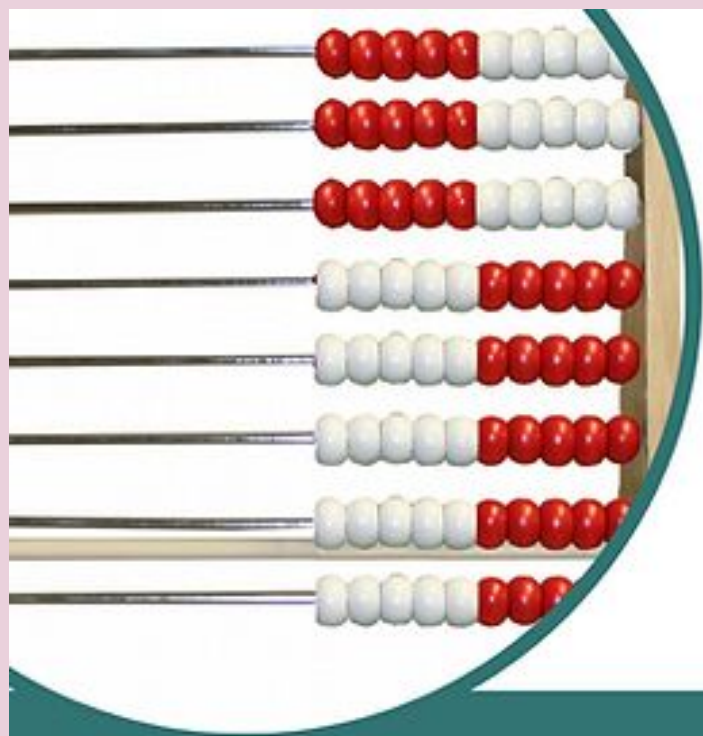
Properties of shape

Name some common 2D and 3D shapes from a group of shapes and describe some of their properties

Name and describe properties of 2D and 3D shapes, including number of sides, vertices, edges, faces and lines of symmetry



	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn term	<p>Number</p> <h2>Place value</h2> <p>VIEW</p>				<p>Number</p> <h2>Addition and subtraction</h2> <p>VIEW</p>				<p>Geometry</p> <h2>Shape</h2> <p>VIEW</p>			
Spring term	<p>Measurement</p> <h2>Money</h2> <p>VIEW</p>		<p>Number</p> <h2>Multiplication and division</h2> <p>VIEW</p>				<p>Measurement</p> <h2>Length and height</h2> <p>VIEW</p>		<p>Measurement</p> <h2>Mass, capacity and temperature</h2> <p>VIEW</p>			
Summer term	<p>Number</p> <h2>Fractions</h2> <p>VIEW</p>			<p>Measurement</p> <h2>Time</h2> <p>VIEW</p>		<h2>Statistics</h2> <p>VIEW</p>		<p>Geometry</p> <h2>Position and direction</h2> <p>VIEW</p>		<p>Consolidation</p>		



MATHSHUBS

SUSSEX

Working with



NCETM

NATIONAL CENTRE FOR EXCELLENCE
in the TEACHING OF MATHEMATICS

MASTERING NUMBER AT RECEPTION & KEY STAGE 1

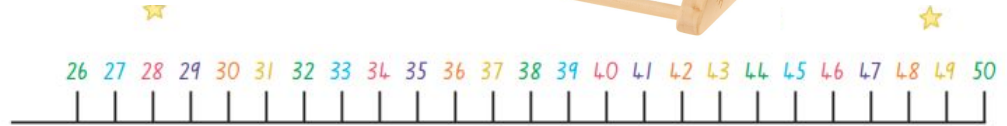
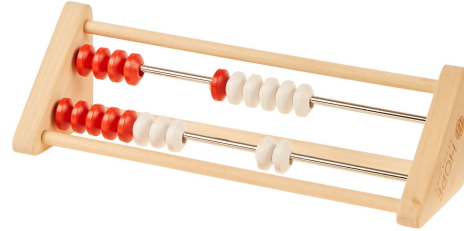
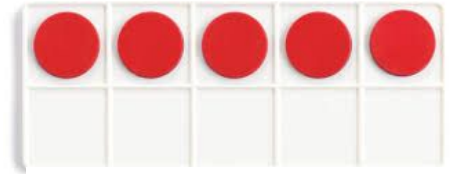
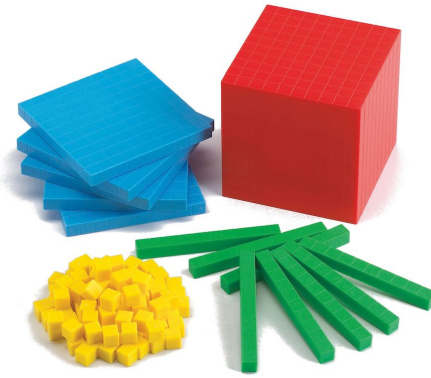
1	4	3	10
12	2	6	8
8	3	4	1
3	1	2	12

Would you like to play
my 3-in-a-row dice
game?



Concrete Apparatus

- Base 10
- Place Value Counters
- Tens Frames
- Hundred squares
- Number lines and number tracks
- Numicon
- Bead strings
- Rekenrek



100 Square

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

Place value

Expected Standards

- Recognise the place value and digits of tens and ones.
- Partition any 2 digit numbers into tens and ones in different ways.

Greater Depth

- Use reasoning about numbers and relationships to solve more complex problems and explain their thinking

Place Value Vocabulary

represent

many

equal to

ones

whole

few

the same as

hundreds

part

fewer

odd

partition

before

fewest

even

digit

after

least

ten more

greater than

more

smallest

ten less

less than

less

greatest

tens

Let's have a go!

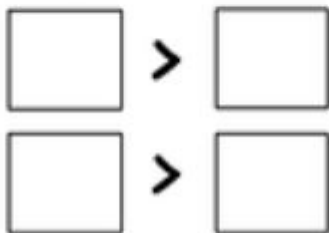
- Fastest fingers first (on a number square)
- Use the apparatus to show me
- I am thinking of a number ...
- Can you partition 57 in different ways?
- Use the digit cards 5, 3, 1, to make the lowest and highest number.

Examples of place value questions

Look at these numbers.



Write each number **once** to make these correct.

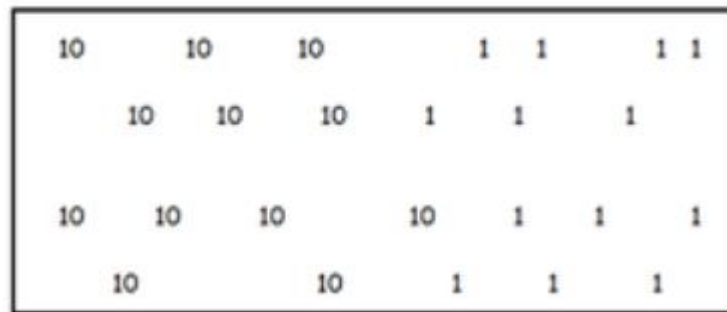


Desi has these coins.



How much does he have **altogether**?

Circle the correct number of **tens** and **ones** to make **eighty-two**.



Look at these digit cards.



(a) Use each card **once** to make the **largest** number.

(b) Use each card **once** to make the **smallest even** number.

Addition and Subtraction

Expected Standards

- Add and subtract two digit numbers and tens, where no regrouping is required
- Add and subtract any 2 digit numbers using an efficient method
- Recall all number bonds to and within 10 and use these to reason with and calculate number bonds to and within 20.

Greater Depth

- Solve unfamiliar word problems that involve more than one step. (This includes all four operations).

Addition and Subtraction Vocabulary

subtract

make

double

take away

sum

half

minus

total

equals

difference between

altogether

How much less/more is ... ?

add

inverse

How many more to make ... ?

more

whole

How more is ... than ... ?

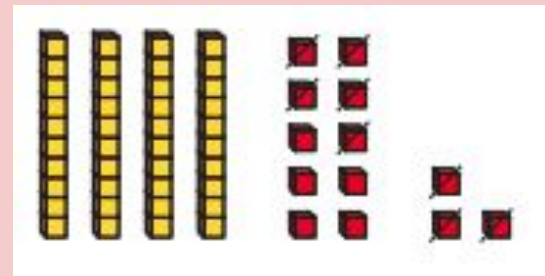
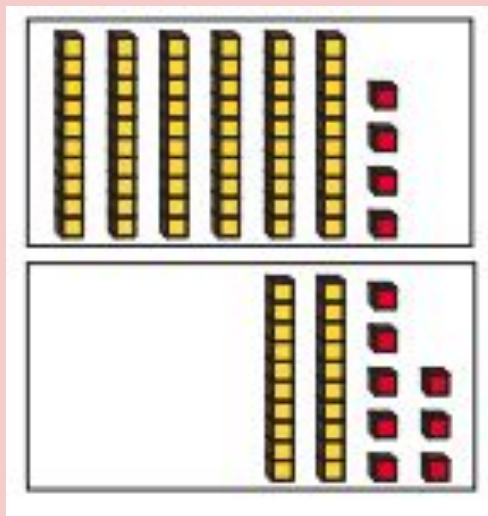
plus

part

How many fewer is ... than ... ?

Partitioning Methods - see IWB display for modelling

- Using tens and ones (deines and counters)
- Drawing tens and ones
- Tens grids/part whole models
- Partitioning on a numberline
- Using number bond knowledge to the nearest 10



How could we use these methods to solve?

$$33 + 24 = \quad \quad \quad 72 - 21 =$$

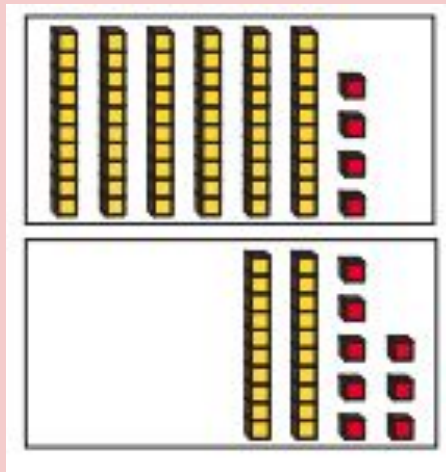
What about $32 - 13 = ?$

Mental Maths - fluency

- 1 more less/10 more less
- doubles/near doubles
- Numberbonds to 10 and 20
- Near 10s (eg $82 - 19 =$)

Column Addition

- Two digits add ones
- Two digits add 10s
- Two digits add two digits
- Regroup



	5	1
+	3	8
<hr/>		
<hr/>		

Tens	Ones

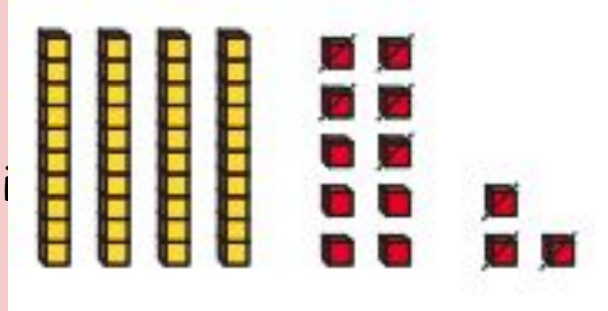
Find the sum of 35 and 26



- Partition both the numbers.
- Add together the ones. Have we got 10 ones?
- Exchange 10 ones for 1 ten.
- How many ones do we have?
- Add together the tens. How many do we have altogether?

Column Subtraction

- Two digits subtract ones
- Two digits subtract 10s
- Two digits subtract two digits
- Exchange



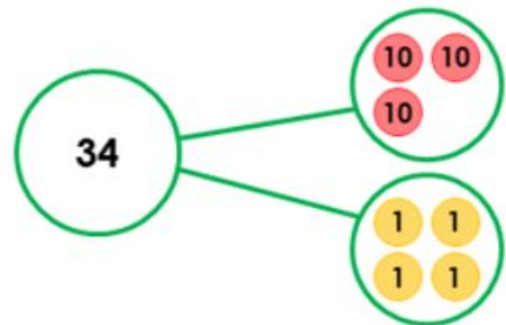
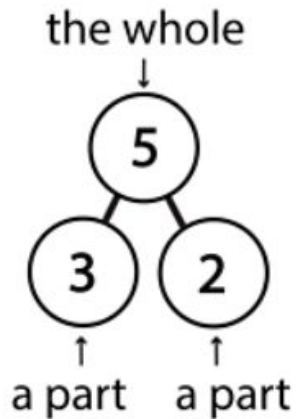
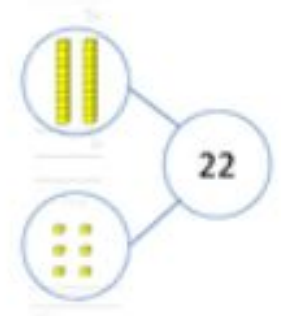
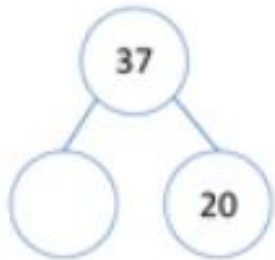
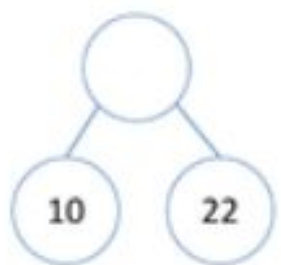
	7	8
-	2	5
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<hr/>		

Tens	Ones

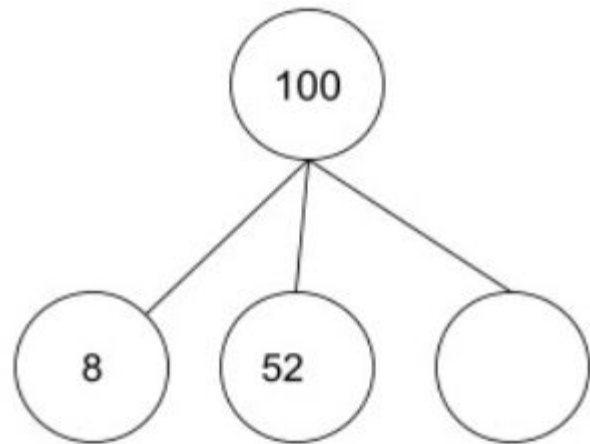
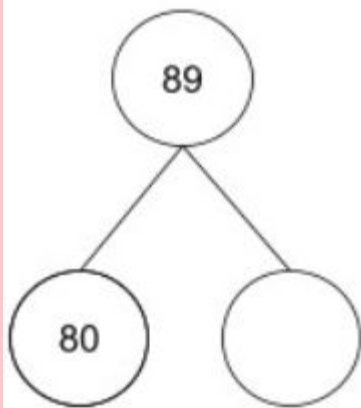
Subtract 8 from 24

1	1	
2	4	
<hr/>		
	8	
<hr/>		
1	6	

Part Whole Models



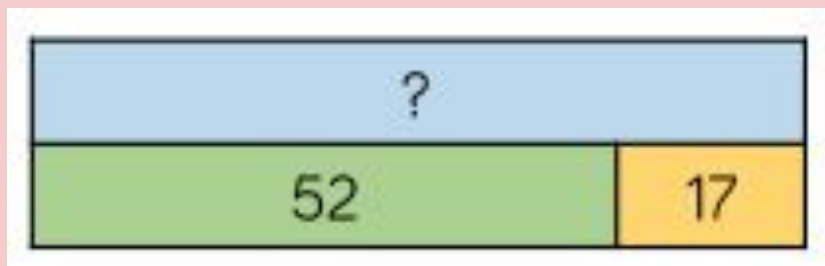
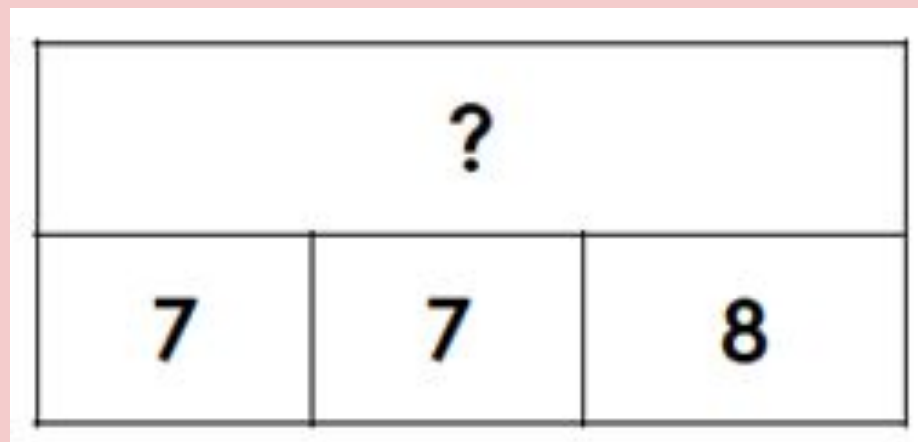
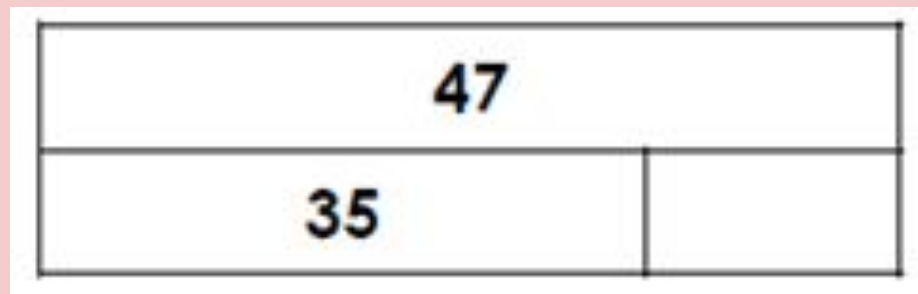
$$\square + \square = \square$$



Bar Models for Addition and Subtraction

$$10 + 12 = 22$$

$$22 - 12 = 10$$



Addition and Subtraction Word Problems

If you have 67 slices of pizza and 15 slices are eaten, how many slices would you have left?



Let's have a go! **Addition to 100 BINGO!**

The image displays an 'Addition to 100 BINGO' game. The main board is a 5x5 grid with numbers and equations. Several numbers are highlighted in yellow, indicating they have been called out. A separate board titled 'Numbers and Sums' provides a list of numbers and their corresponding sums, with some numbers highlighted in red. Various callout cards with equations and numbers are scattered around the board.

Numbers and Sums
(to call out, answers are highlighted in red)

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

Callout Cards:

- $19 + 8$
- $36 + 36$
- 99
- 92

Grid Numbers:

$19 + 8$	27	33	39	
4	90	72		

Multiplication and Division

Expected Standards

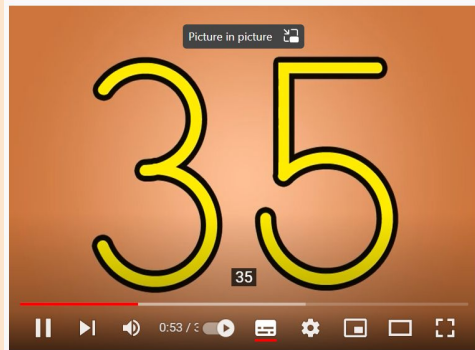
- Count in 2s, 5s and 10s to solve simple problems.
- Recall multiplication and division facts for 2s, 5s and 10s to solve simple problems.
- Read scales in divisions of 1s, 2s, 5s and 10s.

Greater Depth

- Recall and use multiplication and division facts for 2, 5 and 10 and make deductions outside known multiplication facts.
- Solve unfamiliar word problems that involve more than one step. (This includes all four operations).

Rote Counting, Singing or Chanting

- Songs
- Games
- Skip counting
- Spotting patterns on a number square



My 1-100
Hundred Square

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

Fun
Skip Counting by 10
Fill in the blank with the missing number. Remember, you are counting by 10!

30		50	60		80
	20	30		60	
80	90		110		130
250	260			290	300
490		510			540
880	890			930	

Skip Counting by 2s

When Kangaroo hops, he skips a number.
Count by 2s with Kangaroo!

0, 2, 4, 6, 8, 10

Skip count by 2s to the number 30.

2	4	6	8	10
12	14	16	18	20
22	24	26	28	30

Now skip count by 2s starting with the number 1.

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

visit www.laughalongandlearn.co.uk

A Song For Harry!

A song for Harry!



0:00 / 2:48



<https://www.youtube.com/watch?v=dzVyBQ5uTbo>

The image shows a screenshot of a multiplication game interface. At the top center, the score is displayed as **33**. In the top left corner, there is a red circular button labeled "Menu". In the top right corner, there is a white circular button with a red "X". The main area of the game is a 3x4 grid of yellow circular buttons, each containing a multiplication problem. The buttons are arranged in three rows and four columns, connected by horizontal and vertical lines. The multiplication problems are: Row 1: 2×4 , 2×6 , 2×10 , 11×3 ; Row 2: 9×5 , 7×7 , 5×11 , 6×10 ; Row 3: 9×7 , 6×12 , 11×7 , 11×9 . To the right of the grid, there are two circular indicators: a green one at the top and a red one at the bottom. At the bottom of the screen, there is a dark blue bar containing the text "Times Tables up to 12" and "Hit the Question - Mixed Tables" on the left, "Timer: 0:01" in the center, "Score: 5/5" on the right, and the "100marks" logo in the bottom right corner.

Menu

33

2×4 2×6 2×10 11×3

9×5 7×7 5×11 6×10

9×7 6×12 11×7 11×9

Times Tables up to 12
Hit the Question - Mixed Tables

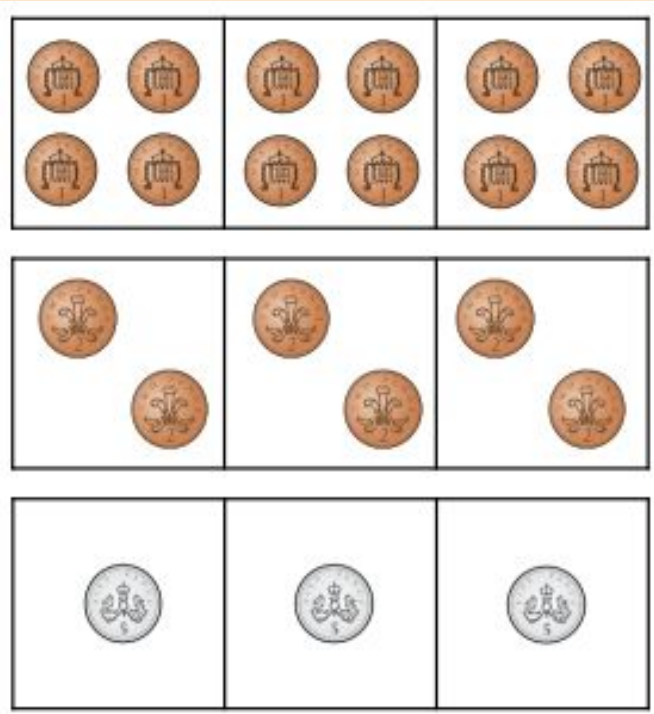
Timer: 0:01

Score: 5/5

100marks

<https://www.topmarks.co.uk/maths-games/7-11-years/multiplication-and-division>

Visual representations - Counting money (10p, 5p, 2p, £5)

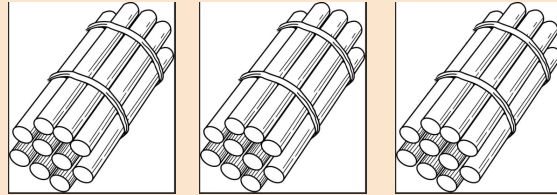
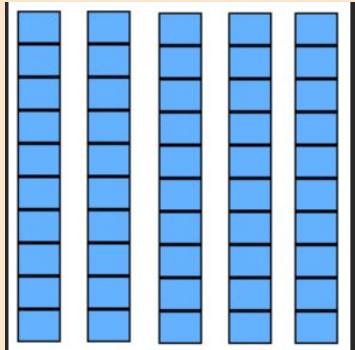


Ella puts these coins in a box.

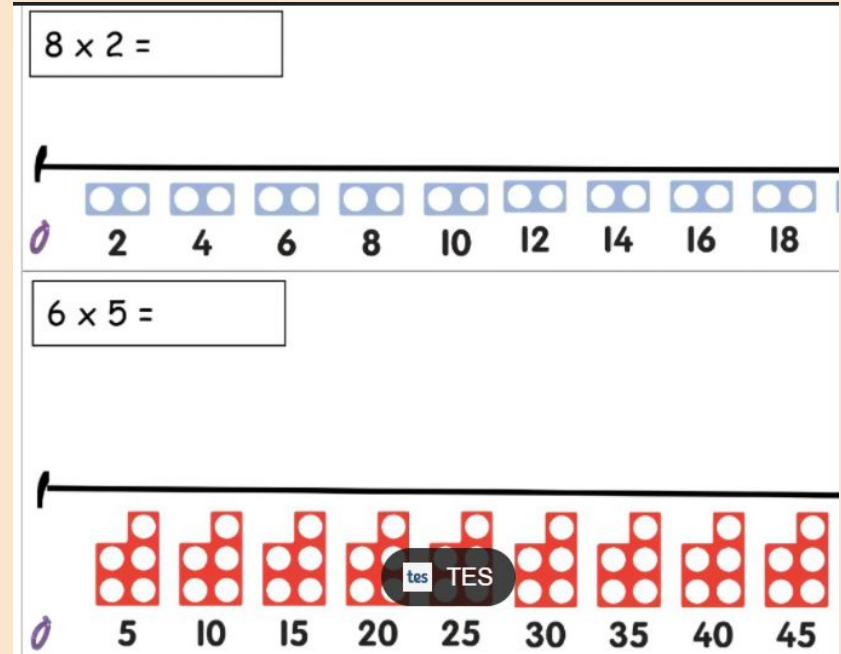
How much does she put in the box **altogether**? p

The image shows a girl sitting at a table, putting coins into a box. There are six 10p coins scattered on the table. The question asks for the total amount in pence.

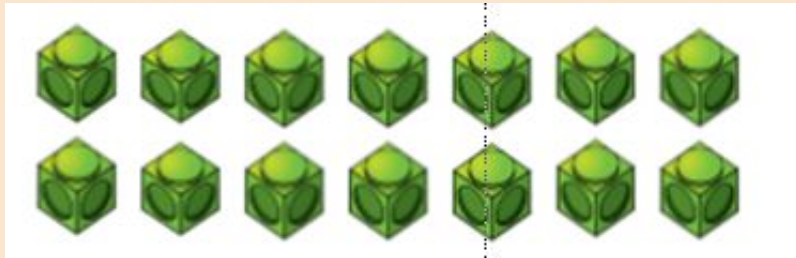
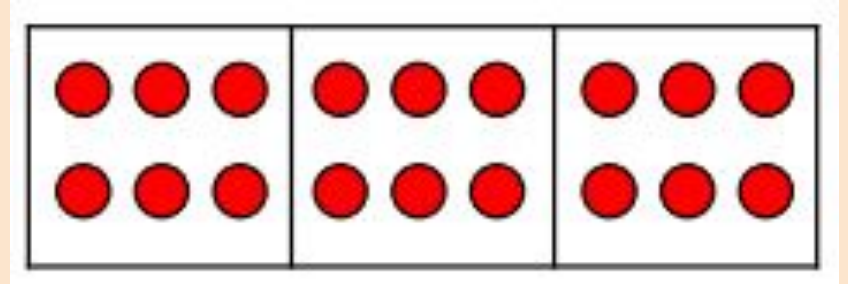
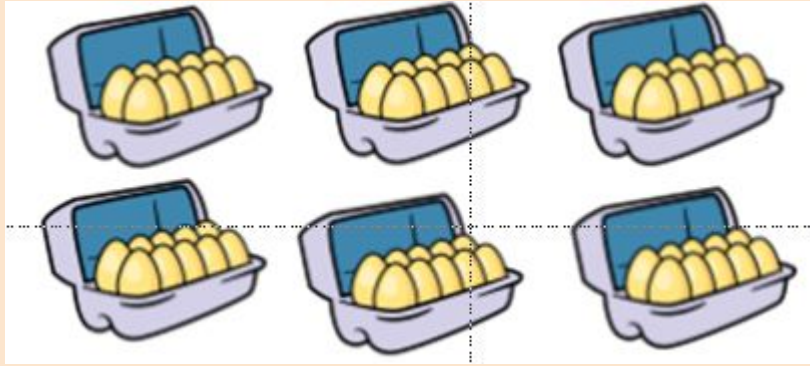
Visual representations - Repeated Addition (Numicon)



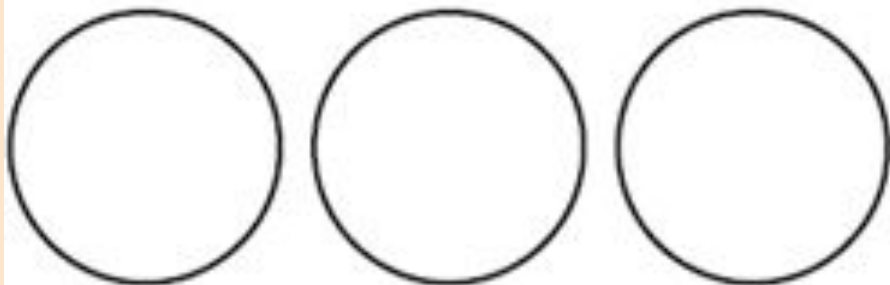
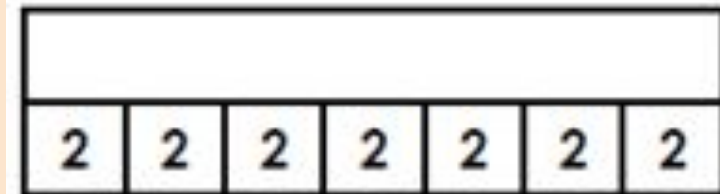
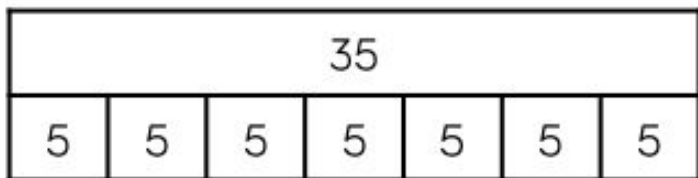
How could these visual representations be used to show division?



Pictures and Arrays



Bar Models/Sharing Hoops



fifteen cups



Grouping



8a. Mrs Gul buys 25 apples. Each group needs 5 apples.



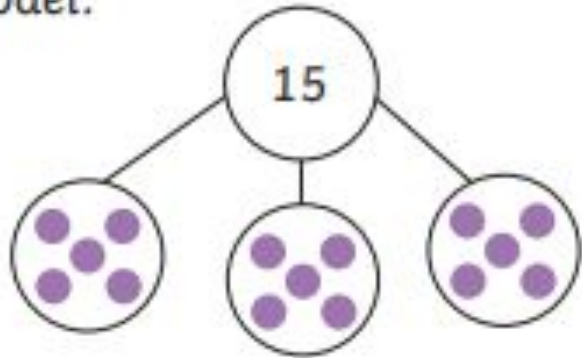
4a. Mr Lund buys 20 plums. Each group needs 5 plums.



9a. Draw twenty-four squares and sort them into equal groups of six.

Part Whole Models for Multiplication and Division

Circle the division calculations that match the model.

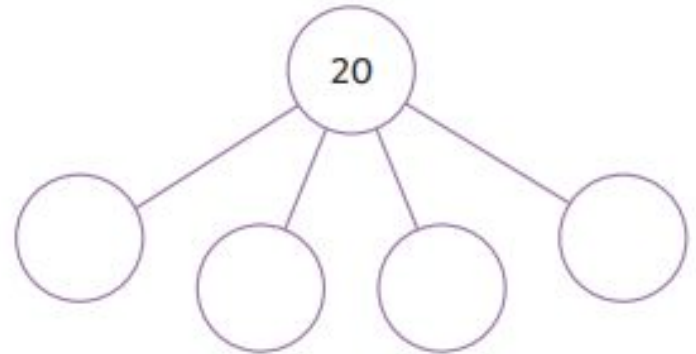


$15 \div 2 = 5$ $5 \div 3 = 15$

$15 \div 5 = 3$ $15 \div 3 = 5$

4. Use the part-whole model to solve the division calculation.

$20 \div 4 = \square$



Word problems

Teddy has 20 pence in 2p coins.

He uses 7 of the coins to buy a drink.

How many 2p coins does he have left?



[Numbots Game](#)

What can you do at home?

- Numbots - Online maths app
- White rose maths - 1 minute maths app
- Time - nearest 15 minutes
- Money - different ways to make the same amount
- Online games - BBC bitesize, topmarks, maths frames.
- Practise mixed calculations
- Board games - orchard games, monopoly,
- Make maths fun! - small bursts

And finally...

We're often asked what's the one thing that will help to support my child in maths at school. So here it is....

Be positive.

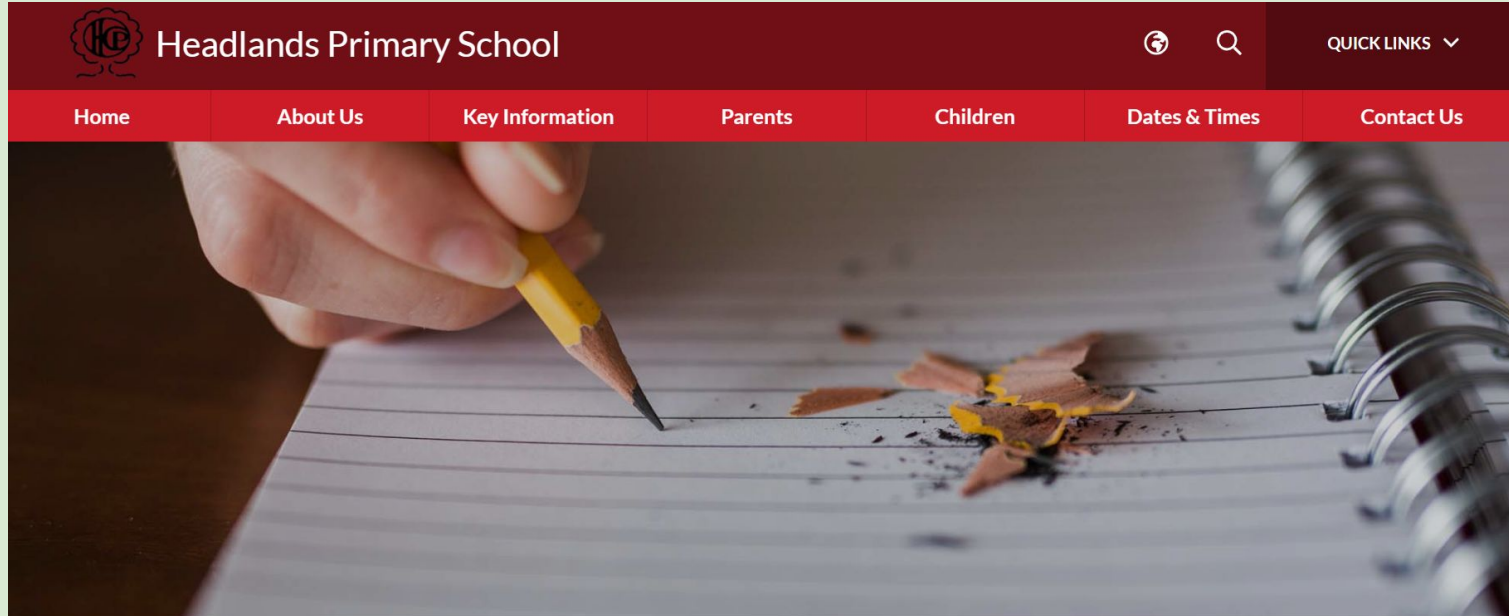
We can ALL do maths!

TOP TIP!

Y2 EXP Tell the time to the nearest 15 minutes on an analogue clock

Y2 GD Tell the time to the nearest 5 minutes on an analogue clock

There is plenty of useful information on our school website. Just go to...



Key information —> Curriculum —> Maths