Ilearn -

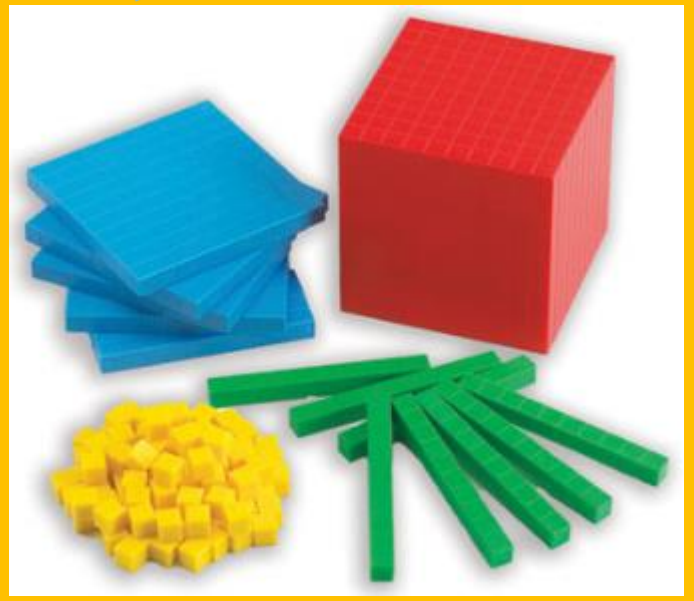
National Curriculum Maths Requirements

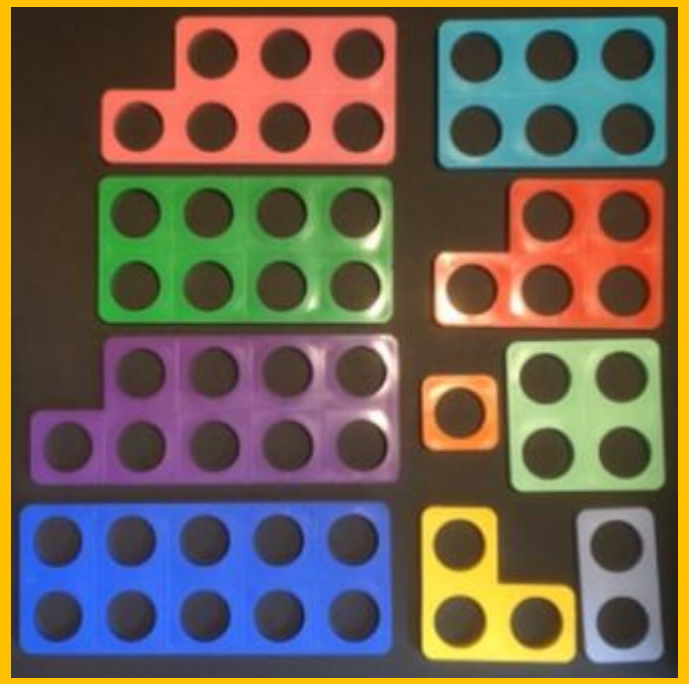
- Year 1
  - Count, read and write to 100 and identify one more, one less. (Count in 2s, 5s and 10s)
  - Use number bonds within 20
  - Solve problems involving addition and subtraction, using objects and pictorial representations (one digit and two digit numbers to 20)
  - Solve problems involving multiplication and division
  - Recognise, find and name ½ ¼ of objects, shape or quantity
  - Solve practical problems for lengths, mass/weight, capacity and time
  - Recognise and name common 2D and 3D shapes
  - Recognise and know the value of coins and notes
  - Describe position, direction and movement including whole, half, quarter and three quarter turns
  - Tell the time to o'clock and half past

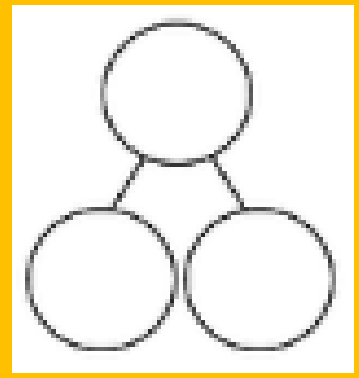
National Curriculum Maths Requirements

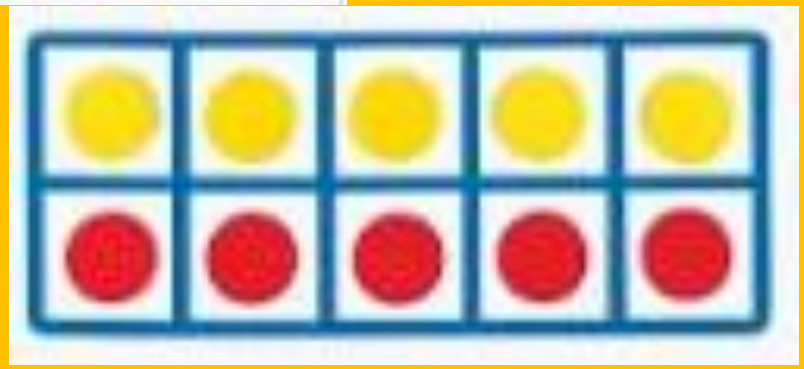
- Year 2
  - Count in steps of 2, 3 and 5 from 0 and in tens from any number forward and backward
  - Recognise the place value of each digit in a 2 digit number
  - Compare and order numbers up to 100, using < > =
  - Solve problems involving addition and subtraction (two two-digit numbers and three 1 digit)
  - Solve problems involving multiplication and division
  - Recall and use multiplication and division facts for the 2, 5 and 10 times tables
  - Recognise, find and name ½ ¼ 1/3 2/4 3/4 of lengths, objects, shapes or quantities
  - Solve practical problems for lengths, weight, capacity, money and time
  - Recognise and name common 2D and 3D shapes, describing their properties
  - Find different combinations of coins that equal the same amount of money
  - Tell the time to quarter to and quarter past
  - Use mathematical vocabulary to describe position, direction and movement
  - Interpret and construct pictograms, tallies, block diagrams and simple tables

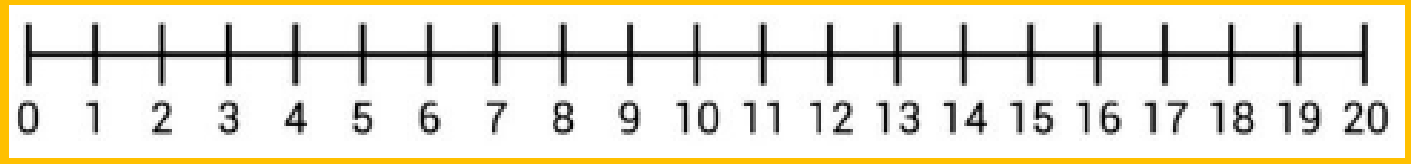
Resources we use to help teach maths



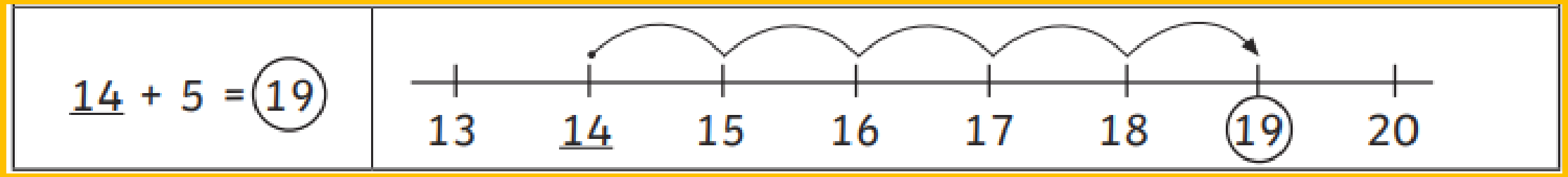


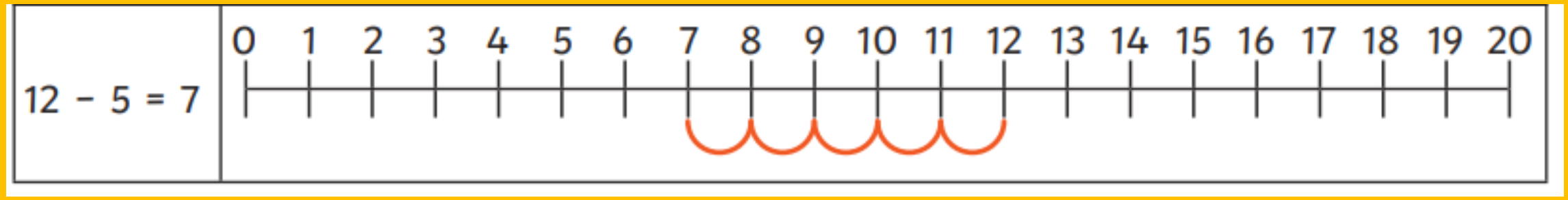




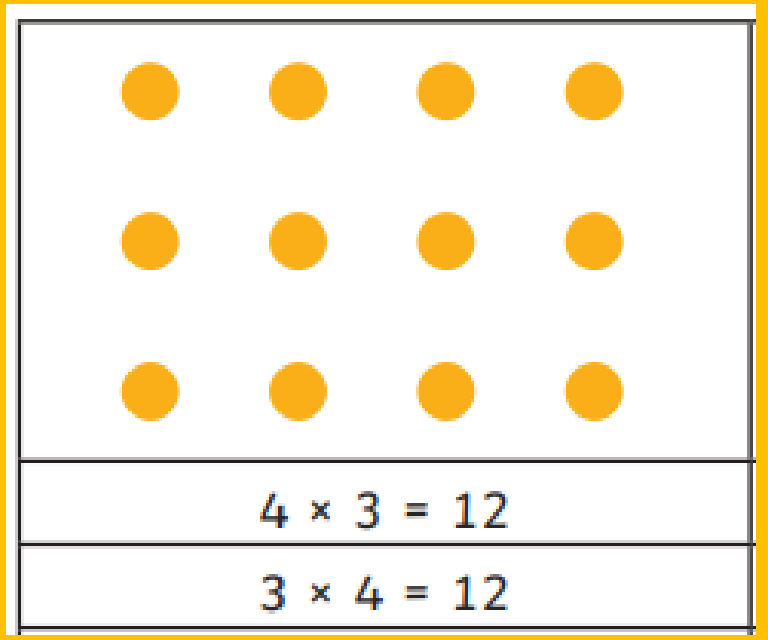


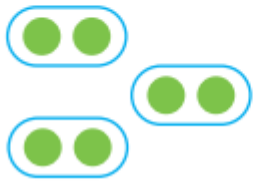
How we teach addition and subtraction



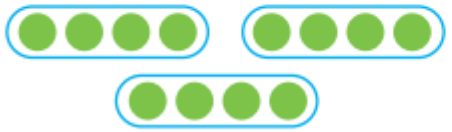


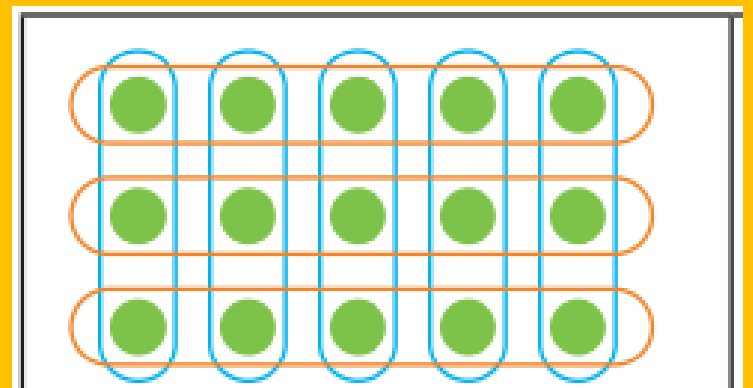
How we teach multiplication



Factors	Repeated Addition	Groups	Array	Related Calculation (commutative property)	Product
3 × 2	2+2+2			2 × 3	6

How we teach division

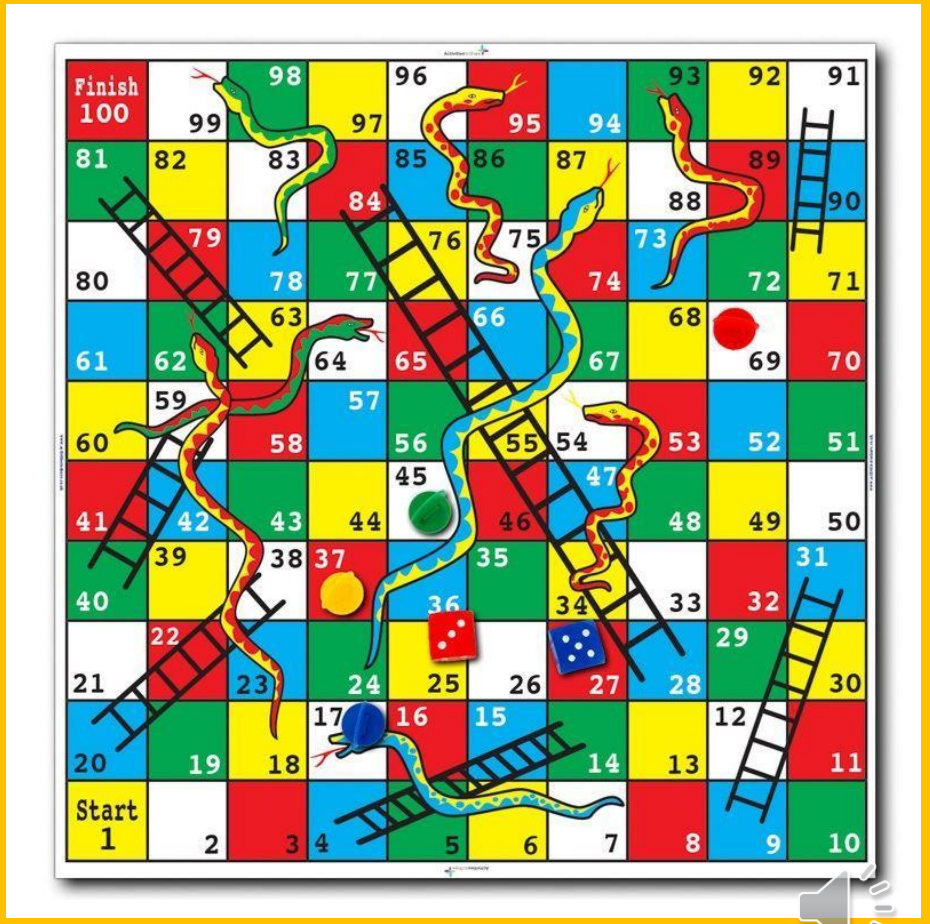
Division	Sharing	Answer	Related Multiplication Facts
12 ÷ 3		4	3 × 4 = 12 4 × 3 = 12



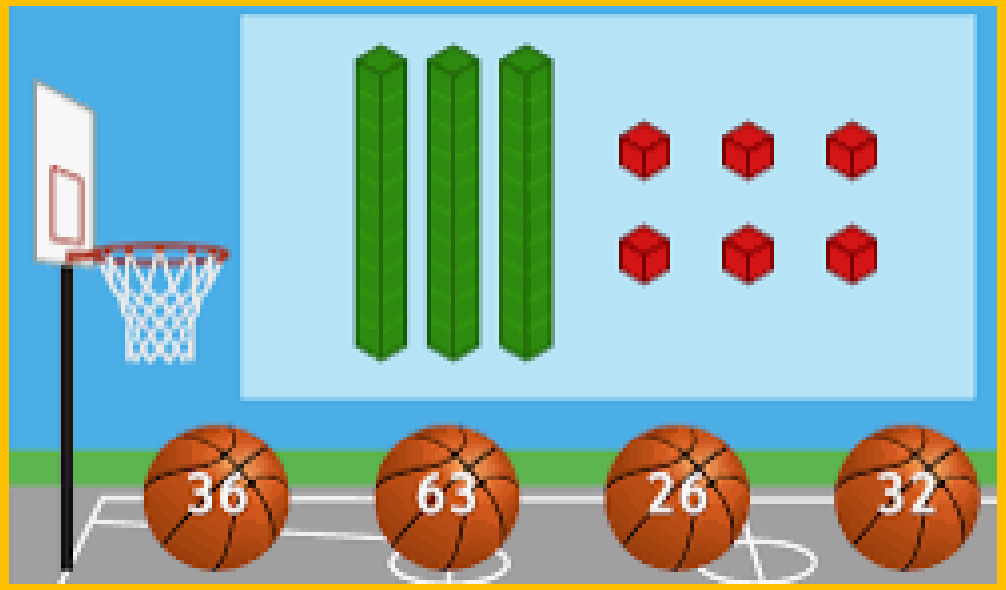
15 ÷ 5 = 3

15 ÷ 3 = 5

Ways to help Maths Games



Internet maths games to help



Internet maths games to help

Number Games	
Caterpillar Ordering	https://www.topmarks.co.uk/r.aspx?sid=3218
Underwater Counting	https://www.topmarks.co.uk/r.aspx?sid=4685
Coconut Ordering Game	https://www.topmarks.co.uk/r.aspx?sid=5314
Place Value Basketball	https://www.topmarks.co.uk/r.aspx?sid=5350
Chopper Squad	https://www.topmarks.co.uk/r.aspx?sid=5318
Helicopter Rescue	https://www.topmarks.co.uk/r.aspx?sid=5308
Robot more or less	https://www.topmarks.co.uk/maths-games/robot-more-or-less

Number Bond Games	
Ways to make	https://www.topmarks.co.uk/Flash.aspx?f=WaystoMake
Curious George – Museum of 10	https://pbskids.org/curiousgeorge/busyday/ten/
Snowman Sums	https://www.ictgames.com/mobilePage/Christmas/snowman/
Save the Whale Game	https://www.topmarks.co.uk/r.aspx?sid=2938
Hit the Button Game – bonds to 10	https://www.topmarks.co.uk/r.aspx?sid=2453

Addition and Subtraction Games	
Funky Mummy Game	https://www.ictgames.com/mobilePage/funkyMummy/index.html
Subtraction to 10 Game	https://www.topmarks.co.uk/r.aspx?sid=5544
Smoothie Maths Game	https://www.ictgames.com/mobilePage/smoothie/
Space Jumps	https://www.ictgames.com/mobilePage/spaceJumps/
Addition Fruit Splat	https://www.sheppardsoftware.com/math/addition/fruit-splat-game/
Subtraction Fruit Splat	https://www.sheppardsoftware.com/math/subtraction/fruit-splat-game/
Arcademics Minus Mission	https://www.arcademics.com/games/mission
Arcademics Alien Addition	https://www.arcademics.com/games/alien
Addition Subtraction Ladder	https://www.starfall.com/h/addsub/addsub-ladder/?sn=math1--math0
Robot Addition	https://www.topmarks.co.uk/r.aspx?sid=5543
Addition to 10	https://www.topmarks.co.uk/r.aspx?sid=5542

Multiplication and Division Games	
Gordon Multiplication Game	https://www.topmarks.co.uk/Flash.aspx?f=multiplication
Mental Maths Train	https://www.topmarks.co.uk/maths-games/mental-maths-train
Archery Arithmetic	https://mathsframe.co.uk/en/resources/resource/399/Archery-Arithmetic-Multiplication
Hit the Button Game – Times tables	https://www.topmarks.co.uk/r.aspx?sid=2453

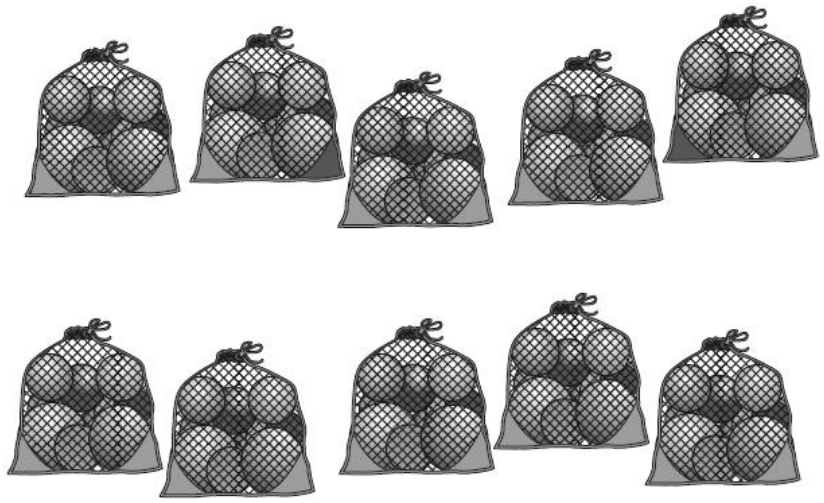
Measures Games	
Coin Game – Ordering and Sorting	https://www.topmarks.co.uk/money/coins-game
Toy Shop Money Game	https://www.topmarks.co.uk/money/toy-shop-money/
Turtle Diary Game - mass	https://www.turtlediary.com/game/heavy-and-light.html
Happy Camel Game	https://pbskids.org/peg/games/happy-camel
Mostly Postie	https://www.ictgames.com/mobilePage/mostlyPostie/
Telling the Time	https://mathsframe.co.uk/en/resources/resource/117/telling_the_time_in_words#
Hickory Dickory Time Game	https://ictgames.com/mobilePage/hickoryDickory/index.html

Shape / Fraction Games	
Shape Monsters	https://www.topmarks.co.uk/r.aspx?sid=5367
2D Shapes Sort	https://www.topmarks.co.uk/carroll-diagrams/2d-shapes
Symmetry Game	https://www.topmarks.co.uk/symmetry/symmetry-matching
Shape patterns	https://www.topmarks.co.uk/ordering-and-sequencing/shape-patterns
Fraction Firepit Game	https://www.ictgames.com/mobilePage/firepitFractions/index.html

Other maths activities to do at home

Assessment - Year 2 Quizzes - Reasoning

10 Sita puts **10** balls in each bag.



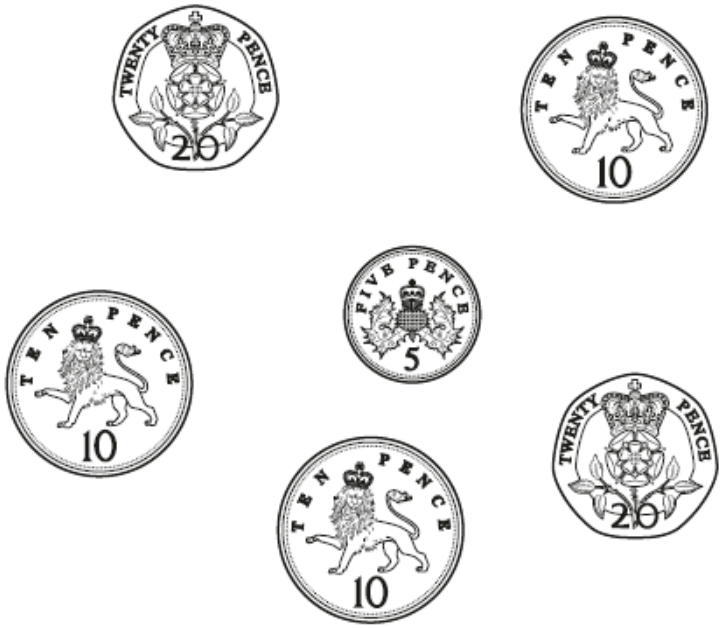
How many balls are in the bags **altogether**?

balls

Sam has 55p.

Ben has 10p less than Sam.

Tick the coins that **Ben** has.

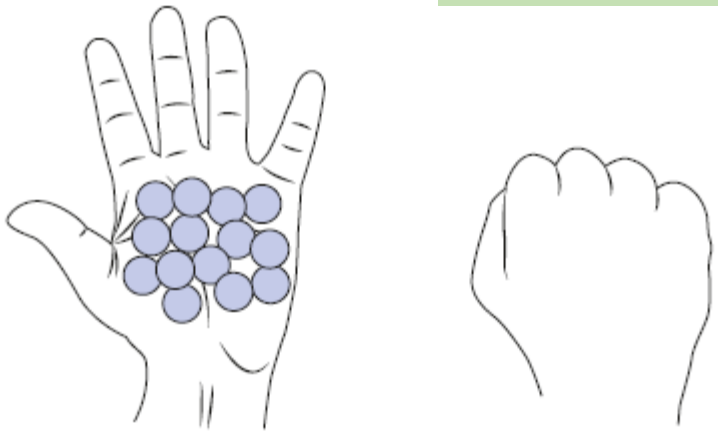


Year 2 Quizzes - Reasoning

- Being able to work out the number sentence needed
- 21= 14+?
- 14+?=21
- Use of a number line to 'draw' the calculation
- Use of a bar model

20 Amy has **21** counters altogether.

She has **14** counters in one hand.

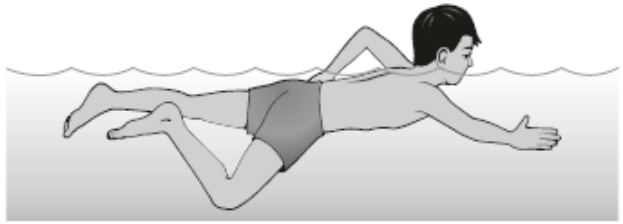


How many counters does she have in the other hand?

counters

1 mark

26



One length of a swimming pool is **10** metres.

Abdul swims the length of the pool **4** times.

Abdul works out how many metres he swims altogether.

Circle the **two** calculations that Abdul can use.

10 + 4

4 × 10

10 + 10 + 10 + 10

4 + 4 + 4 + 4

Year 2 Quizzes - Arithmetic

Addition	Subtraction
8 + 6 = ☐	12 – 7 = ☐
4 + 5 + 6 = ☐	10 – ☐ = 2
28 + ☐ = 35	63 – 10 – 10 = ☐
21 + 40 = ☐	

Multiplication	Division
9 × 10 = ☐	8 ÷ 2 = ☐
3 × 2 = ☐	$\frac{1}{2}$ of 16 = ☐
	$\frac{1}{4}$ of 12 = ☐

Addition	Subtraction	Key strategies
52 + 7 = ☐	56 – ☐ = 51	• Counting on from any 2 digit number using number bonds rather than counting on in 1s eg 52+ 7= 59 rather than 52+1+1+1…. Etc • Counting on in multiples of 10 • Adding three multiples of 10 (relate to adding 3 units, number bonds to 10 and 100) • Bridging through 10 adding TU numbers, partitioning second number using number bonds where possible eg 69+10+1; 55+10+5+2. Number line recording supports fluency • Bridging through 10 when subtracting eg 71-10-1-3. Number line recording supports fluency
50 + ☐ = 80		
10 + 40 + 20 = ☐		
69 + 11 = ☐		
55 + 17 = ☐	71 – 14 = ☐	

Multiplication	Division	Key strategies
8 × 5 = ☐	40 ÷ 10 = ☐	• Linking counting in 5s to multiples of 5s and recording using X symbol • Counting in 3s and using this to work out multiples of 3 (not learning 3x table) • Understanding 'grouping' in division to interpret number sentence as 'how many groups of X' • Using a known fact to work out an unknown division fact. I know 50÷ 5 =10 so 55 ÷5 will be 11 • Finding a quarter (and knowing a quarter is half of a half) and that 3 quarters = ¾. • Knowing that finding a quarter and subtracting it from a number will leave 3/4
6 × 3 = ☐	55 ÷ 5 = ☐	
	$\frac{1}{3}$ of 30 = ☐	
	$\frac{3}{4}$ of 20 = ☐	

Year 2 Teacher Assessment Handover

Year 2 – Maths Teacher assessment framework 2022-2023					
Working towards the expected standard					
Read and write numbers in numerals up to 100 e.g. can write the numbers 14 and 41 correctly					
Partition a two-digit number into tens and ones to demonstrate an understanding of place value, though may use structured apparatus eg base 10 to support them					
Add and subtract two-digit numbers and ones and two-digit numbers and tens where no regrouping is required, explaining their method verbally, in pictures or using apparatus e.g. 23 + 5; 46 + 20, 16 - 5, 88 - 30					
Recall at least four of the six 2 number bonds for 10 and reason about associated facts (e.g. 6 + 4 = 10 , therefore 4 + 6 = 10 and 10 – 6 = 4)					
Count in twos, fives and tens from 0 and use this to solve problems					
Know the value of different coins					
Name some common 2-D and 3D shapes from a group of shapes or from pictures of the shapes and describe some of their properties (eg triangles, rectangles, squares, circles, cuboids, cubes, pyramids and spheres					
Working at the expected standard					
Read scales (in the form of a number line/practical measuring situation) in divisions of ones, twos, fives and tens.					
Partition any two-digit number into different combinations of tens and ones, explaining their thinking verbally, in pictures or using apparatus.					
Add and subtract any 2 two-digit numbers using an efficient strategy explaining their method verbally, in pictures or using apparatus eg 48 + 35; 72 – 17					
Recall all number bonds to and within 10 and use these to reason with and calculate bonds to and within 20, recognising other associated additive relationships (eg If 7 + 3 = 10, then 17 + 3 = 20; if 7 – 3 = 4, then 17-3 = 14; leading to if 14 + 3 = 17, then 3 + 14 = 17, 17 – 14 = 3 and 17 – 3 = 14)					
Recall multiplication and division facts for 2, 5 and 10 and use them to solve simple problems, demonstrating an understanding of commutativity as necessary					
Identify ½,1/3 ¼, 2/4, ¾ of a number or shape, and knows that all parts must be equal parts of the whole					
Use different coins to make the same amount					
Read the time on a clock to the nearest 15 minutes					
Name and describe properties of 2-D and 3-D shapes, including number of sides, vertices, edges, faces and lines of symmetry.					
Working at greater depth within the expected standard					
Read scales (in the form of a number line/practical measuring situation) where not all numbers on the scale are given and estimate points in between					
Recall and use multiplication and division facts for 2,5 and 10 and make deductions outside known multiplication facts					
Use reasoning about numbers and relationships to solve more complex problems and explain their thinking (eg 29 + 17 = 15 + 4 + 17; `together Jack and Sam have £14. Jack has £2 more than Sam. How much money does Sam have?` etc)					
Solve unfamiliar word problems that involve more than one step (e.g. which has the most biscuits, 4 packets of biscuits with 5 in each packet or 3 packets of biscuits with 10 in each packet?)					
Read the time on the clock to the nearest 5 minutes					
Describe similarities and differences of 2D and 3-D shapes, using their properties (e.g that two different 2-D shapes both have only one line of symmetry; that a cube and a cuboid have the same number of edges, faces and vertices but different dimensions).					