KS1 Parents workshop

Maths in Reception

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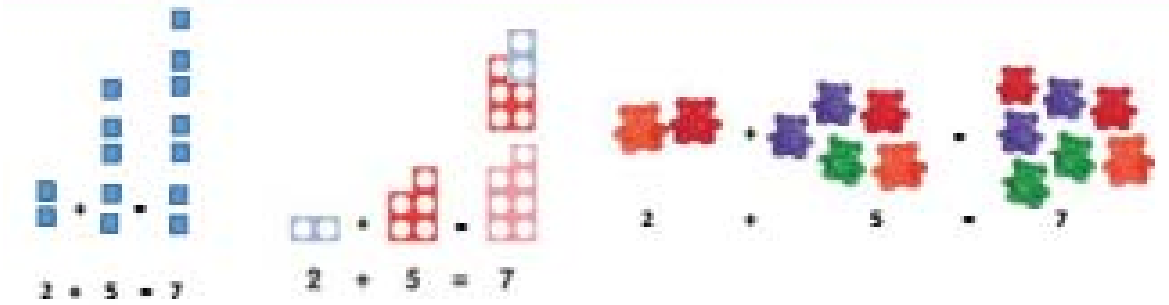
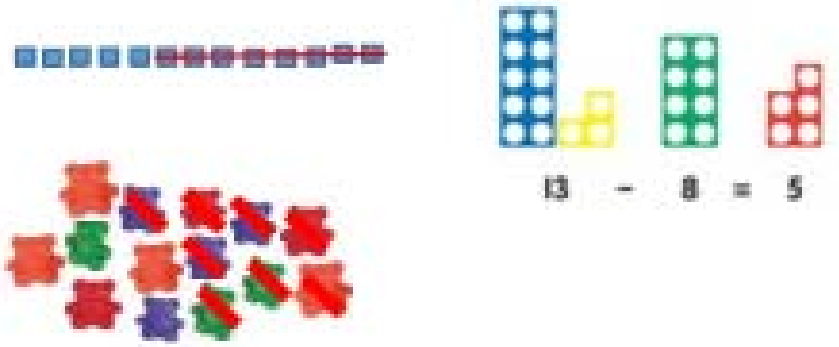
EYFS – addition and subtraction



Objects / Pictures

2 + 3 = 5

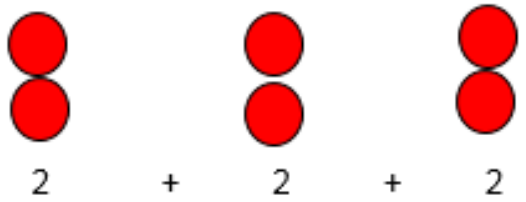


5 – 2 = 3

EYFS – Multiplication and division

3 lots of 2 counters = 3 x 2

Counting in 2s

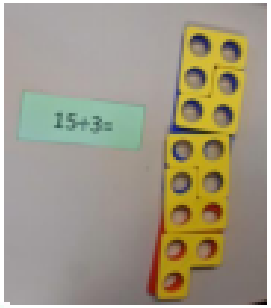


2 + 2 + 2 = 6

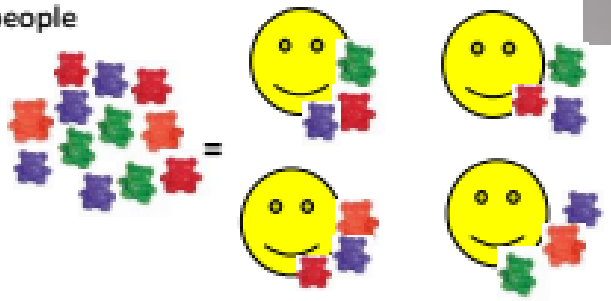
3 **lots** of 2 = 6

Symbols/pictures/objects

4 sticks shared between 2 children.



Sharing: share these bears between 4 people

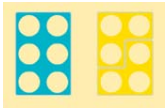


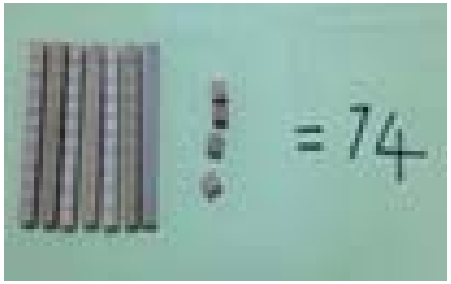
Shared Objects

6 counters shared between 3 children
6 ÷ 3 = 2 each

8 ÷ 2 = 4

Resources you might see

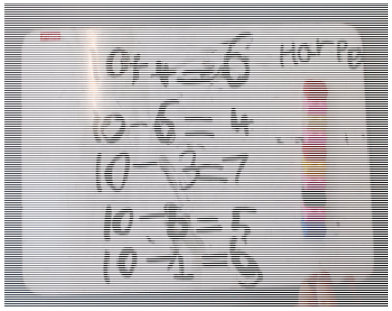
Numicon 



Diennes or base 10

Rods and counters

Number lines,100 squares, tables, grids



Place Value in Year 1 and 2

Counting and understanding the value of the digits in a number

Counting and Place Value

count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number

Counting in 1s,start at 43 and count on.

Count back from 87 until you get to 45.

Count on from 90. How far can you go?

Counting and place value

count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens

37 What number is this? Does it come before or after 73?

- Write fifty-two in numerals.
- Count from 48 to 66.
- Count in 2s from 10.
- Count back in 10s from 120.
- What multiple of 5 comes after 25?

Counting and place value

given a number, identify one more and one less

- What is one more than 24?
- One less than 30?

•10 friends say they are coming to your party. On the day, 1 is ill. How many friends come to your party?

•Put a circle around the number that is 1 more than 26.

17 25 62 28 36 27

Count them game

Games to support

- Ladders
- Follow the leader
- Mastermind
- Snap
- Bingo

Addition and subtraction

Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs

Steps continued

- read the + sign in a question
- read the – sign in a question
- read the = sign in a question
- recognise the vocabulary for addition in a written question
- recognise the vocabulary for subtraction in a written question
- write the correct sign + for an addition question
- write the correct sign – for a subtraction question
- recognise the = sign in any position in a question

Represent and use number bonds and related subtraction facts within 20

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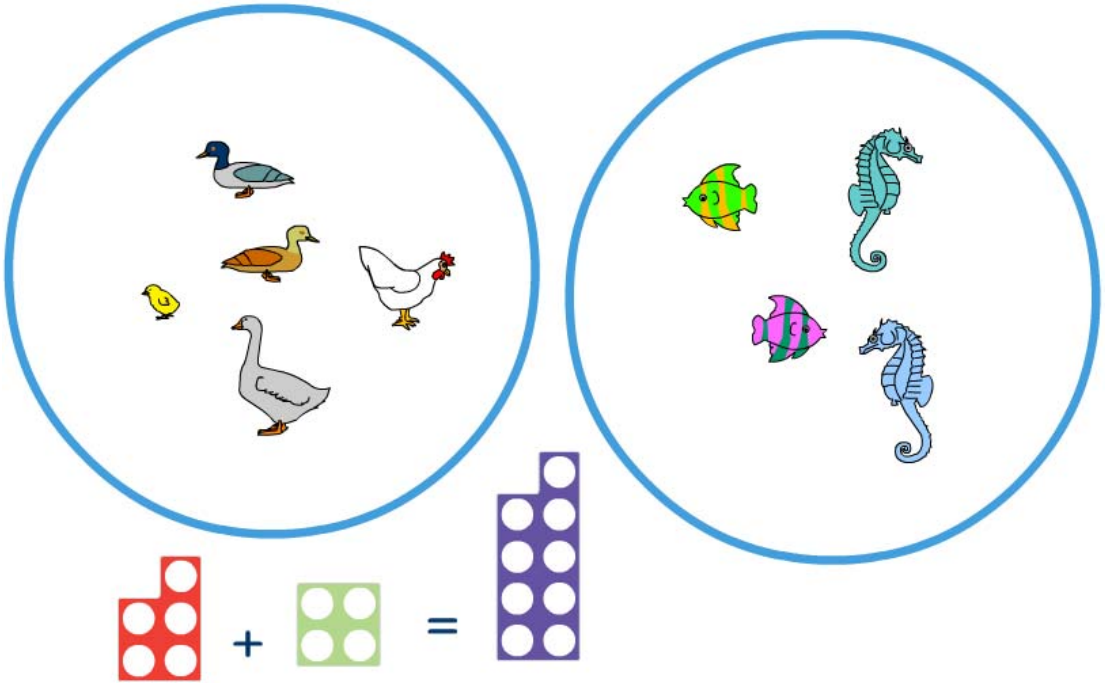
What are number bonds?

Pairs of numbers that add together to make another number. *eg* 5 + 2 = 7

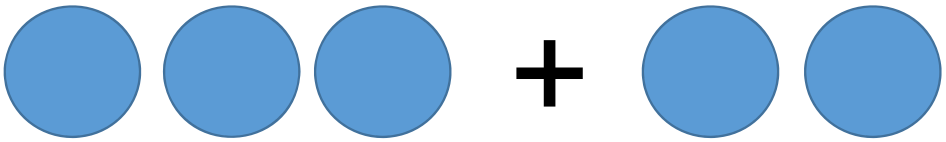
Number bonds for 10 are extremely important, but children need to know bonds for **all** numbers up to 20.

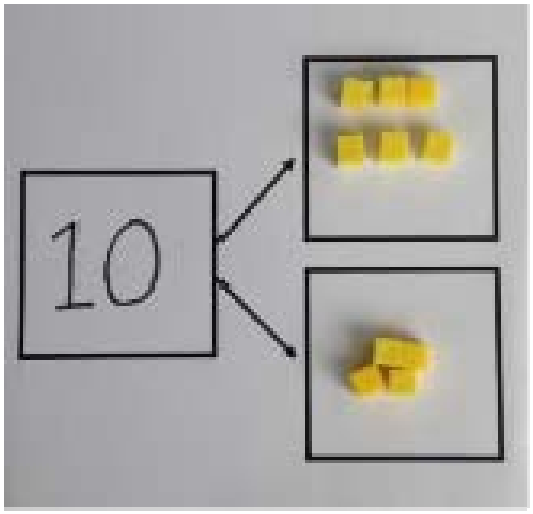
Your turn! Write down all the number bonds for 10. How many are there?

Modelling addition

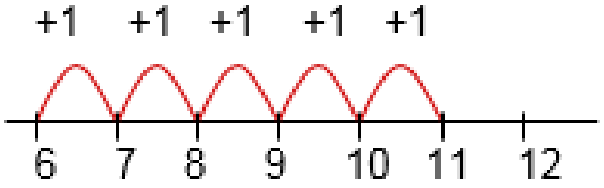


Combining groups of objects





Counting on in ones

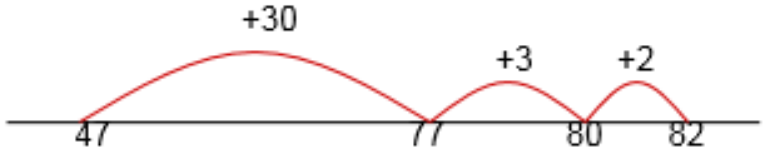


6 + 5=11

18 + 5 = 23

Empty Number line

35 + 47

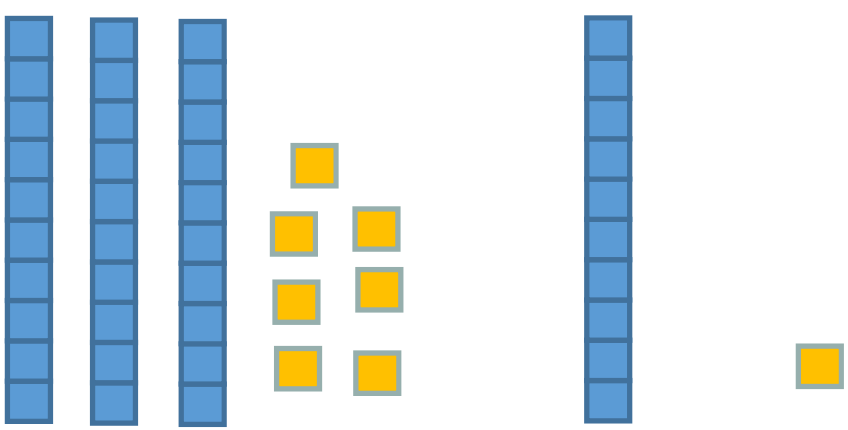


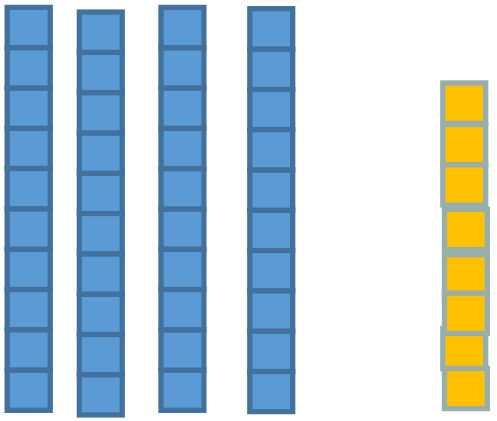
(Also jumps can be made in 10s and ones)

Partitioning 35 + 47

40 + 30 = 70
7 + 5 = 12
70 + 12 = 82 35 + 47 = 82

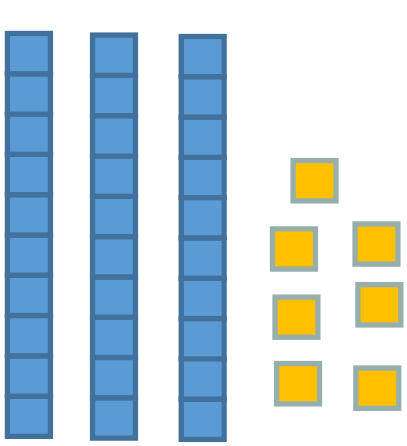
Partitioning

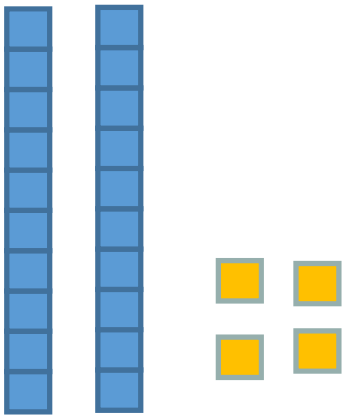


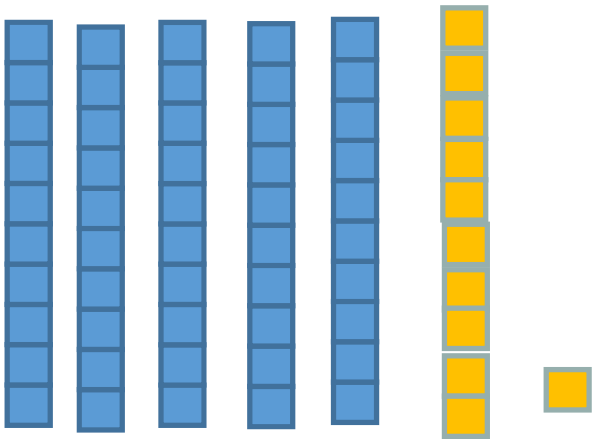


37 + 11 = 48

Partitioning



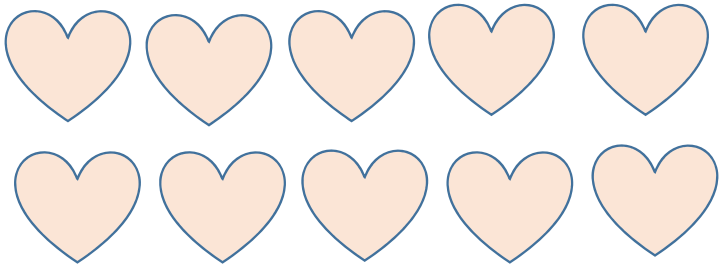


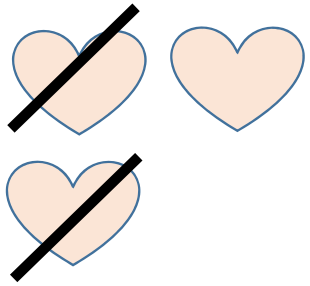


37 + 24 = 61

Concrete and pictorial representations

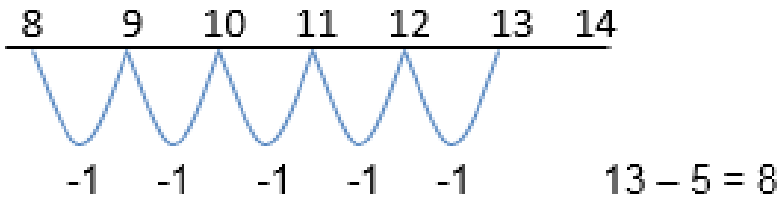
7 – 3 = 4





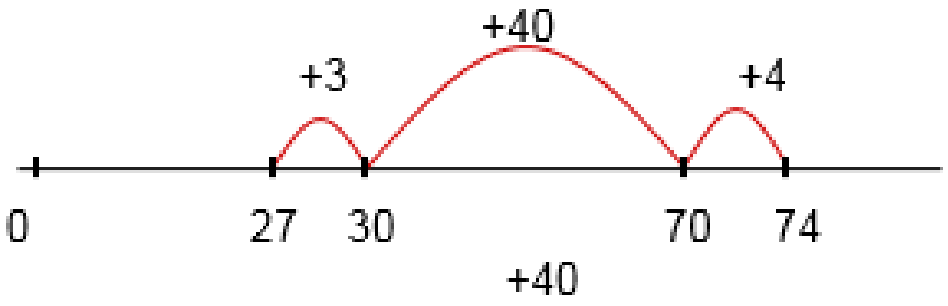
13 – 2 = 11

Counting back 13 - 5



Using Base 10

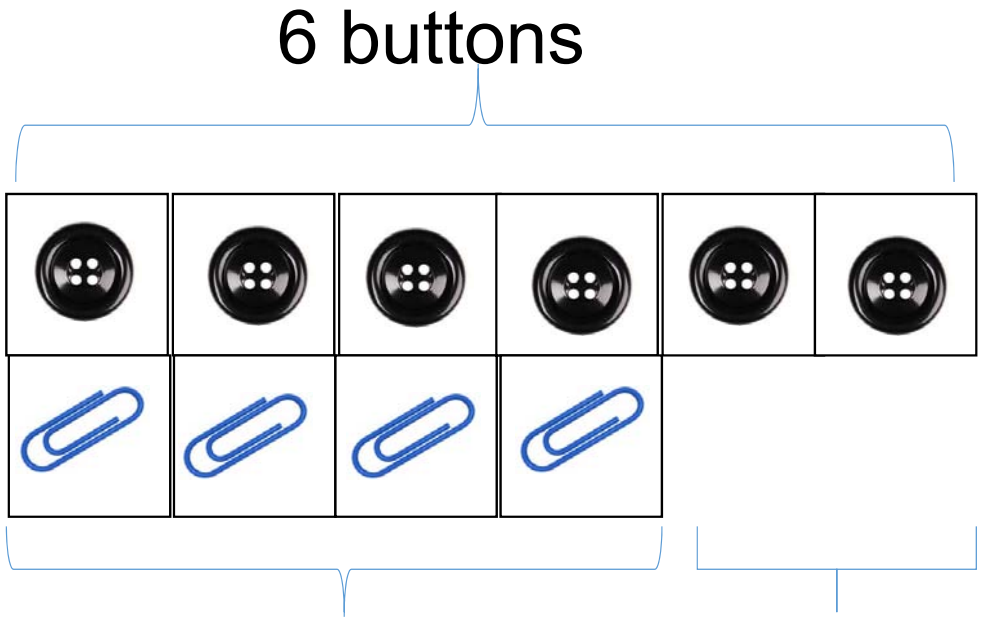
74 -27 = 47



Finding the difference

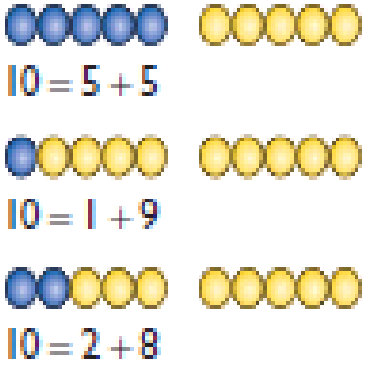
12

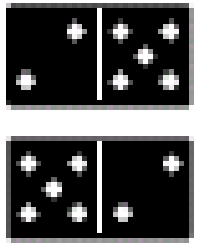
13



Represent and use number bonds and related subtraction facts within 20

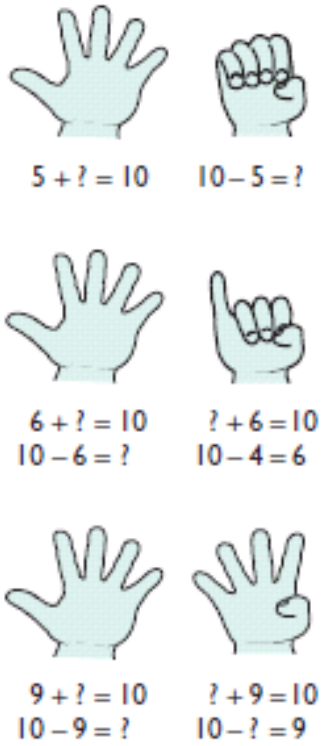
Ways of representing number bonds





2 + 5 = 7

5 + 2 = 7



Represent and use number bonds and related subtraction facts within 20

15 + 3 = 18

3 + 15 = 18

18 – 15 = 3

18 – 3 = 15

Your turn! What other addition and subtraction facts can you write for 18?

Ping pong game

Choose which set of number bonds you want to practise.
Eg number bonds for 10/20.

I say 3, you say the number that goes with it to make 10.

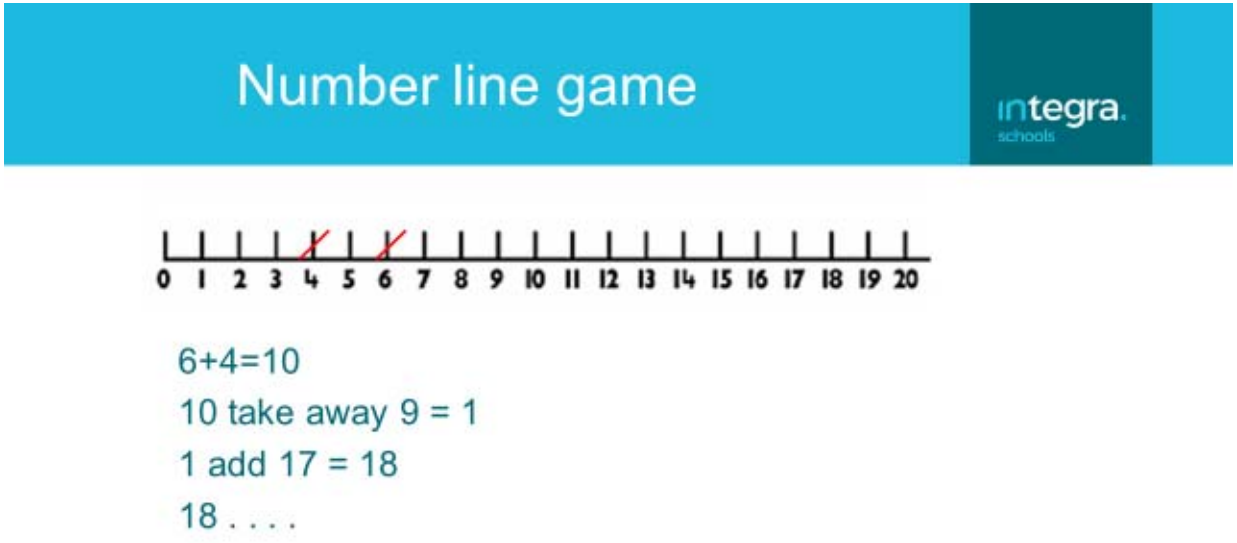
So I say 3, you say 7. I say 8, you say 2.

I say ping, you say pong. Etc.

You can play this with any bonds your child needs to practise, or use it to practise times tables.

Games to support

- Snakes and ladders
- Number line game
- Card games
- Yatzee
- Monopoly
- Pick up sticks
- Shut the box
- Dominoes
- Beetle drive



Multiplication and division

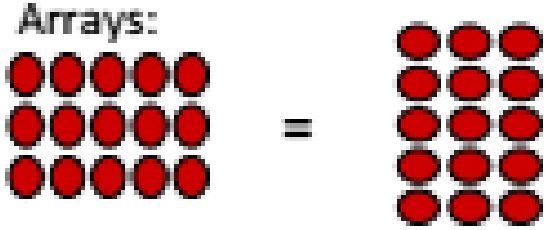
2x,5x,10x tables
Division facts
Counting in 3's (Year 2)
Word problems using these tables

Arrays

- These are examples of arrays found in the environment.

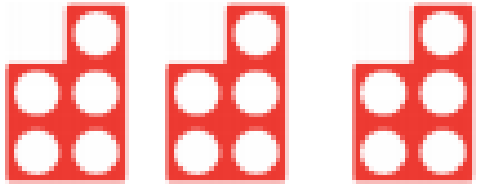
What multiplications do they show?

Arrays:

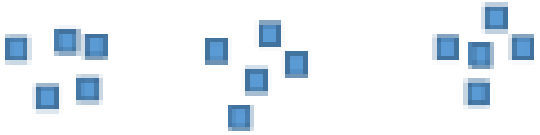


5 x 3 = 3 x 5

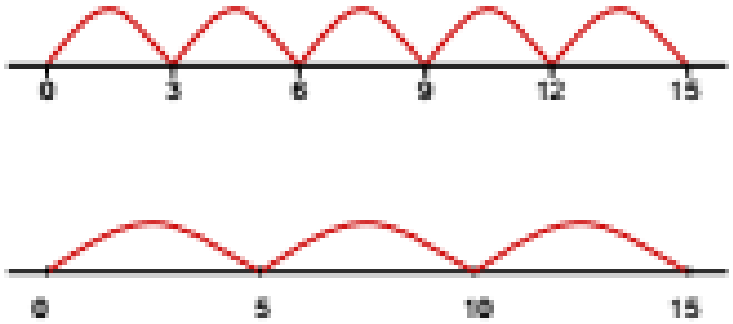
Numicon:



Dots/counters/cubes:



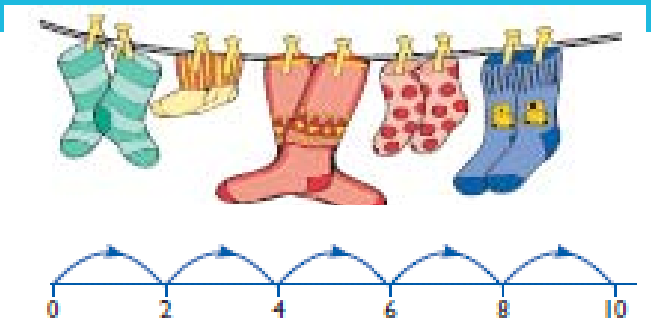
Repeated addition / number lines:



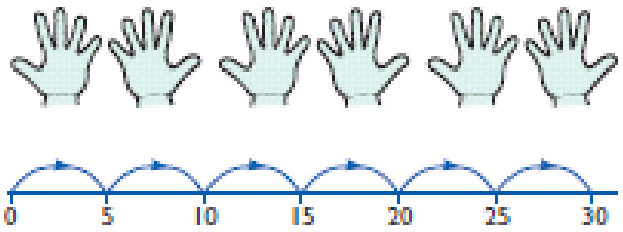
e.g. 6 x 5 = 30 5 x 6 = 30

4 + 9 = 13 9 + 4 = 13

Models and Images



2 + 2 + 2 + 2 + 2 = 10
5 groups of 2 or 5 x 2 = 10
2 multiplied by 5 or 5 multiplied by 2
5 pairs
5 hops of 2



5 + 5 + 5 + 5 + 5 + 5 = 30
6 groups of 5 or 6 x 5 = 30
5 multiplied by 6 or 6 multiplied by 5
6 groups of 5
6 hops of 5

Division by sharing

You have 10 cakes.

How many cakes will each child have if you share them equally between

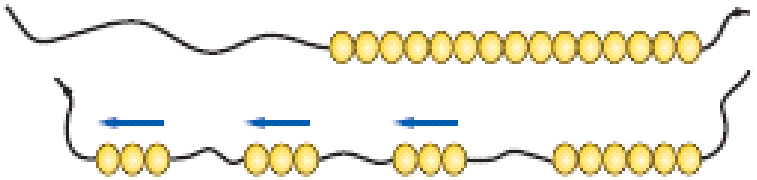
2 children_____

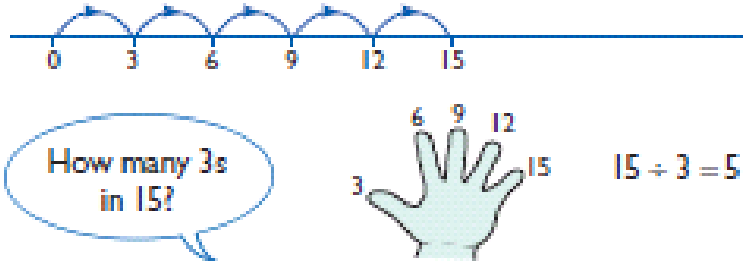
5 children_____

10 children_____

You can use any objects to represent the cakes, but ask a child to do this practically first – using concrete objects helps make the connection between real objects and the symbols we use in maths.

Division by grouping



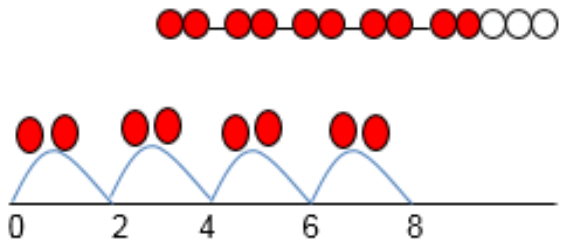


Keep taking out groups of the same number. How many groups are there? Any left over that won't make another group of the same number are the remainder.

Number lines for division

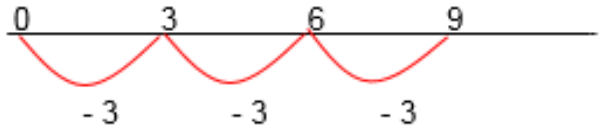
Number tracks / Number line

8 ÷ 2 = 4

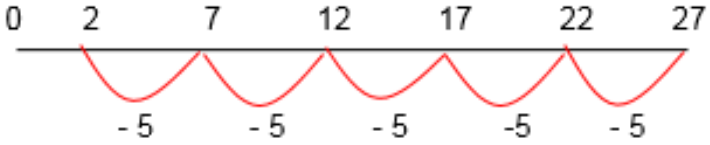


Counting Down

9 ÷ 3 = 3 jumps

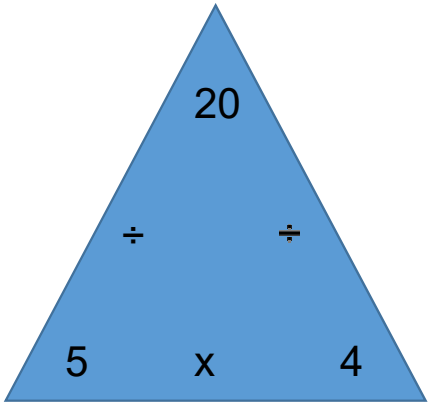


27 ÷ 5 = 5 r 2



Practising times tables

- Songs
- Counting – rote
- Trios
- Using playing cards



Maths assessment in Year 2

End of year 2 expectations

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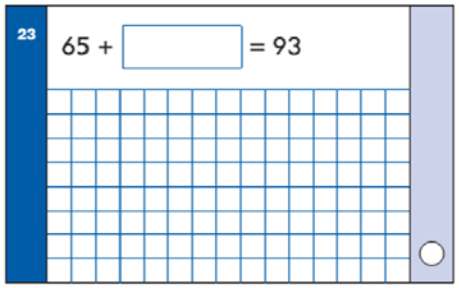
1 $5 + 7 =$ ☐

2 $19 - 9 =$ ☐

23 $65 +$ ☐ $= 93$



24 $\frac{1}{3}$ of $21 =$ ☐

28 Abdul goes to the zoo.

He finds out the mass of some animals.

Cheetah	Tiger	Lion
58 kg	**94 kg**	**94 kg**

Compare the mass of the animals.

Write **<** or **>** or **=** in each box.

Cheetah's mass ☐ Tiger's mass

Tiger's mass ☐ Lion's mass

30 Look at these fractions.

$\frac{1}{2}$ $\frac{1}{3}$ $\frac{2}{4}$ $\frac{3}{4}$

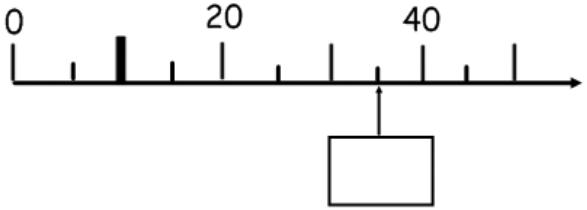
Circle the **two** fractions that are **equal**.

31 Complete the number sentence below.

$3 \times 8 = 2 \times$ ☐

Questions for the end of KS1 – 2016 SATs

Look at the number line.
Write the correct number in the box.



24 ÷ 2 = ☐

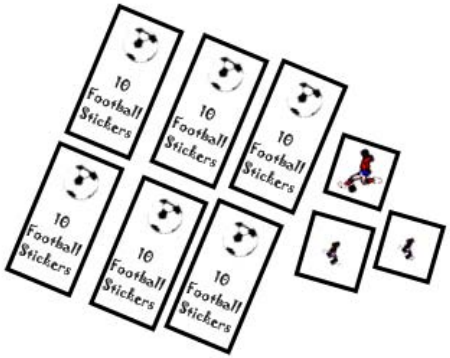
Complete the number sentence below.

4 x 5 = 2 x ☐

8 x 5 = ☐

Abu has 12 football stickers.

Here are Fred's stickers.
How many stickers does Fred have?



☐ stickers

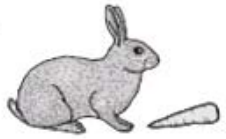
Questions for the end of KS1 – 2016 SATs

Ria plants 5 rows of carrots.

There are 3 carrots in each row.

A rabbit eats 4 of the carrots.

How many carrots are left?



Show your working

carrots

Ria makes 15 biscuits.

She shares the biscuits between 3 plates.

Tick the calculation that shows how many biscuits are on each plate.

Tick **one**

15 + 3 = 18 ☐

15 - 3 = 12 ☐

15 * 3 = 5 ☐

15 x 3 = 45 ☐

Other key areas to support

Telling the time

- Knowing their birthday
- Days of week, months of the year
- Reading the clock – hour, half hour, quarter to, quarter past, five minute intervals
- How many days in week
- How many months in year
- How many minutes in an hour, day…
- 12 hour

Practising telling the time

- As often as possible reading clocks, watches, timetables
- Daily timetable
- Using digital devices at home – setting DVD to record etc
- Looking at radio times, tv times etc.
- Bus timetables, train timetables
- Shop opening and closing times
- How long tv programmes or films last, how long is the piece of music

Money

- Recognising coins and notes
- Different ways of making the same amount - what coins have I got in my purse/wallet ?
- How much is there ?
- Have I got enough for ?
- Shopping – 2 for 1 ? Using shopping vouchers
- Adding up the bills
- Swapping coins for fewer coins but the value is the same e.g 2p,2p,1p or 5p

How you can help at home

Learn number bonds and times tables

Practice telling the time, knowing days of week, months of the year, ordering days and months

Familiarisation with coins, simple shopping bills, value for money offers in shops

Playing board games – such as Yahtzee, Monopoly, snakes and ladders.

Play cards, darts, dominoes, snap, pick up sticks

Puzzles from the newspaper

Reading maths stories

WebsitesWebsites

- http://www.bbc.co.uk/bitesize/ks1/maths/

- http://www.topmarks.co.uk/maths-games/5-7-years/multiplication-and-division
- http://www.maths-games.org/times-tables-games.html
- http://www.maths-games.org/fraction-games.html
- http://primarygamesarena.com/Key-Stage-1

Maths apps

- Maths age 3-5
- Maths age 4-6
- Mental maths cards
- AB Maths lite
- Bee Bot
- 10 minutes a day
- Hungry fish