

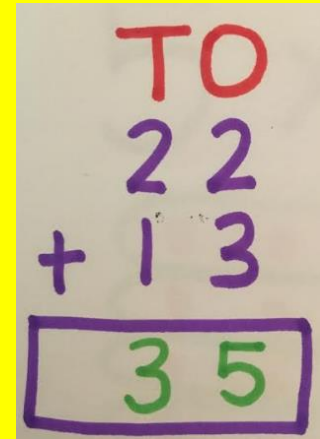
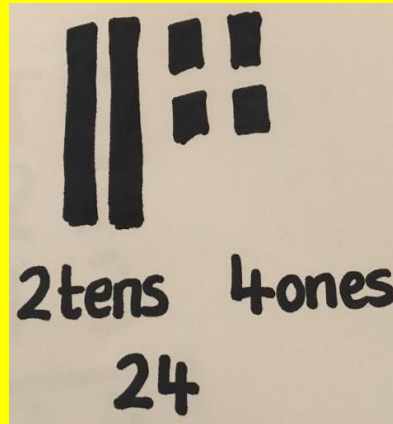
Year Two
How to Help with:
Maths

Friday 18th February

Concrete

Pictorial

Abstract



Concrete



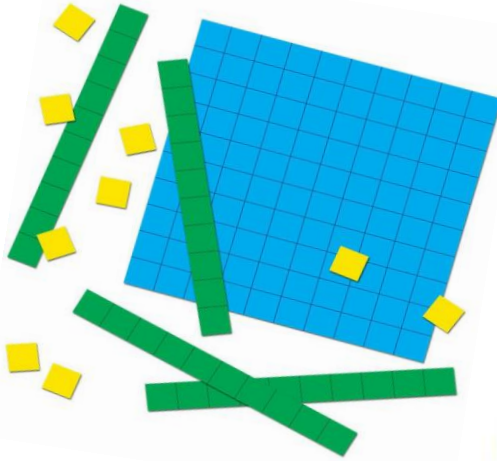
Pictorial



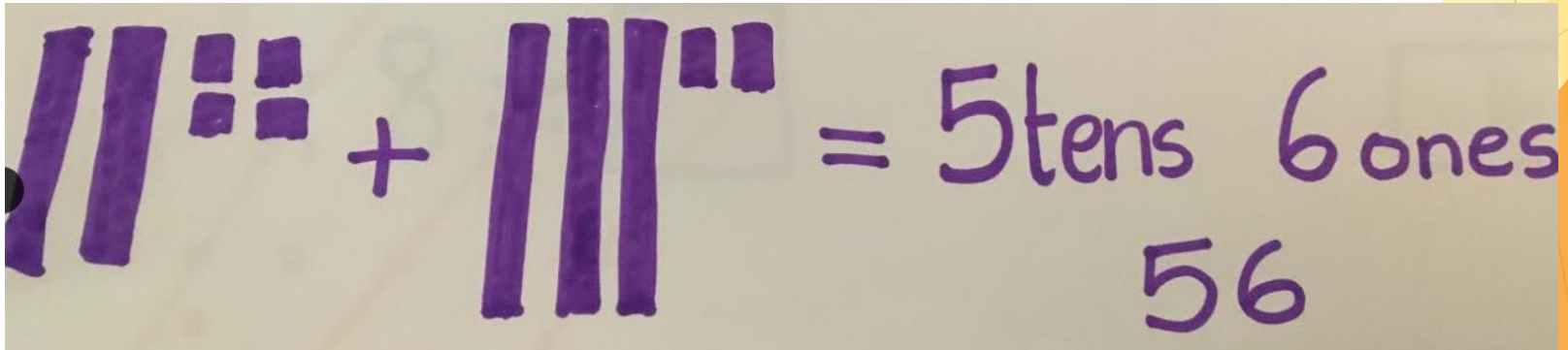
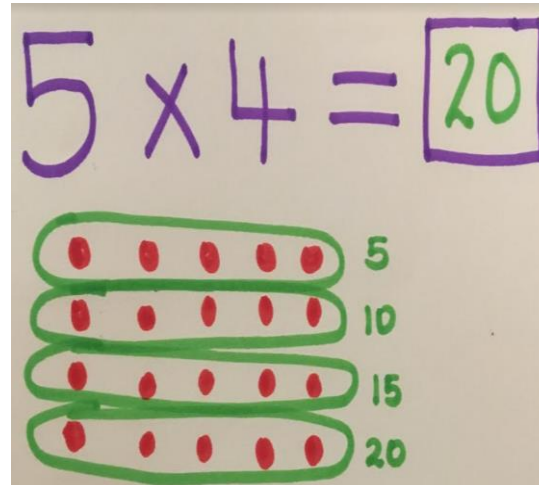
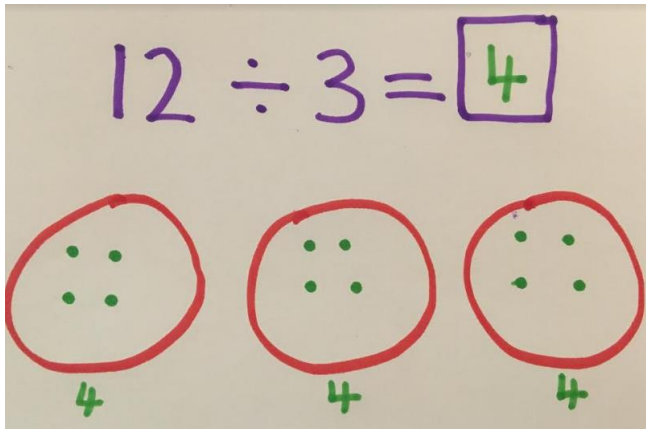
Abstract

$$2 + 1 = 3$$

Concrete Manipulatives



Pictorial



Abstract

$$\begin{array}{r} \text{TO} \\ 46 \\ -34 \\ \hline 12 \end{array}$$

$$\begin{array}{r} \text{TO} \\ 22 \\ +13 \\ \hline 35 \end{array}$$

$$\begin{array}{r} \text{TO} \\ 66 \\ +49 \\ \hline 115 \end{array}$$

$$\begin{array}{r} \text{TO} \\ \overset{8}{\cancel{9}}5 \\ -47 \\ \hline 48 \end{array}$$

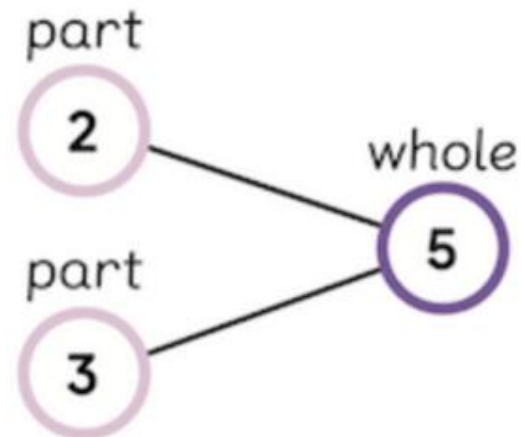
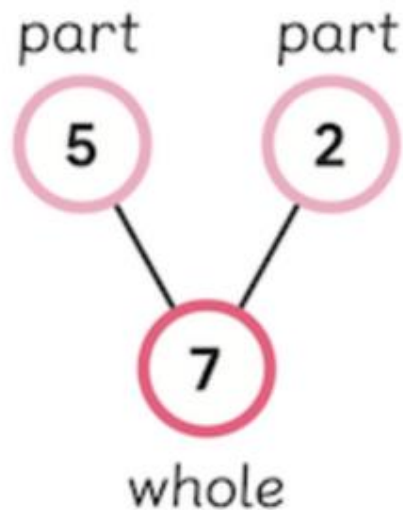
NUMBER BONDS

WHAT IS A NUMBER BOND?

Number bonds let students split numbers in useful ways. They show how numbers join together, and how they break down into component parts. When used in year 1, number bonds forge the number sense needed for early primary students to move to addition and subtraction. As students progress, number bonds become an essential mental problem solving strategy.

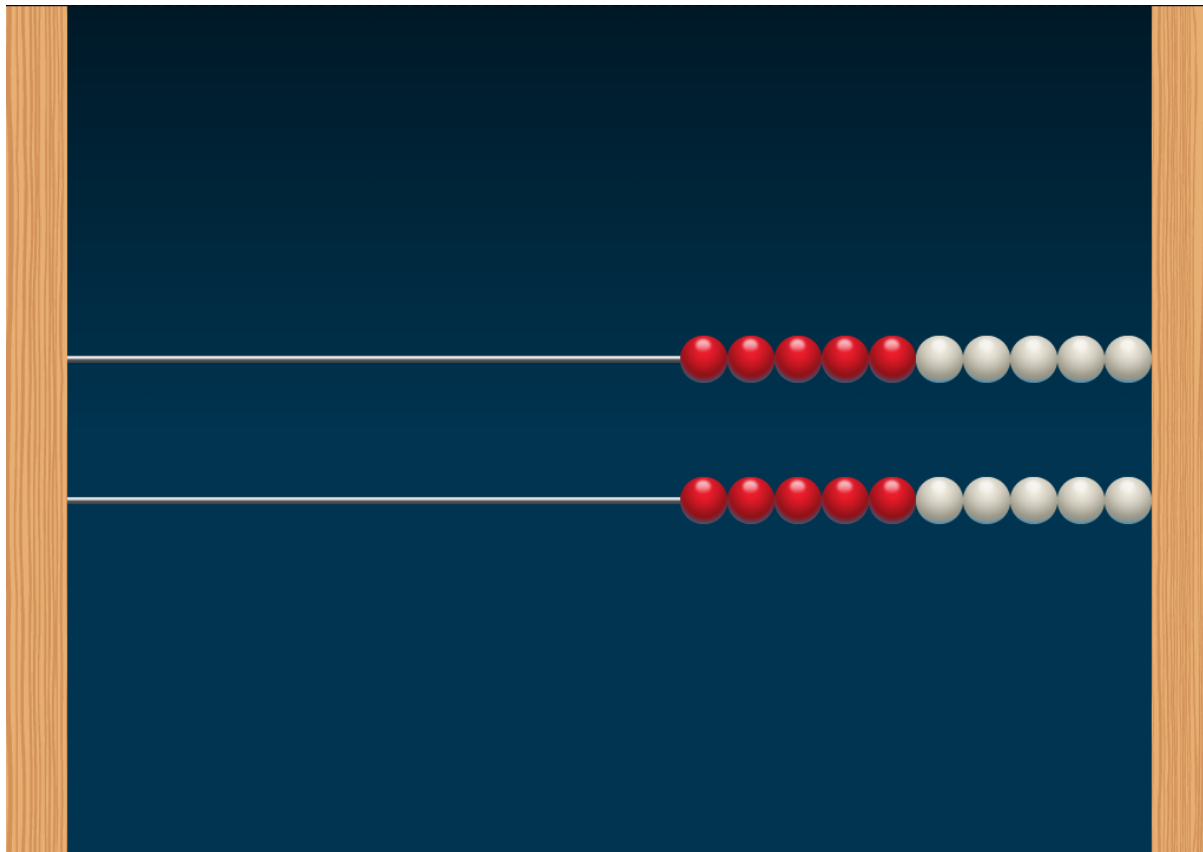
HOW DO NUMBER BONDS WORK?

Number bonds are represented by circles connected by lines. The 'whole' is written in the first circle, while the 'parts' are in the adjoining circles.

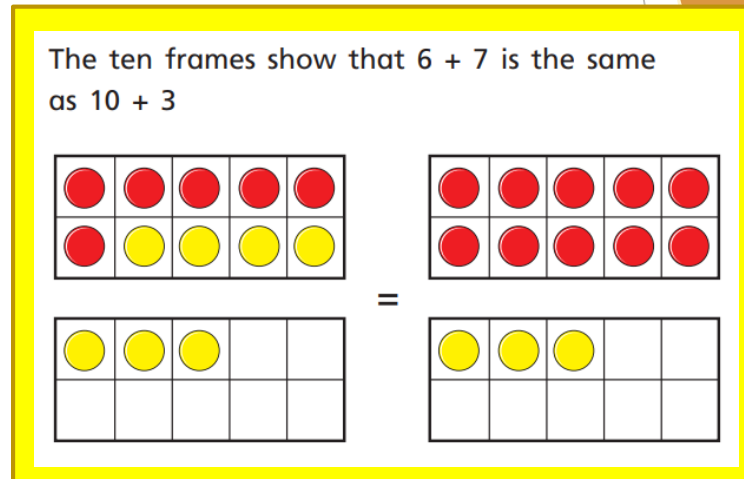
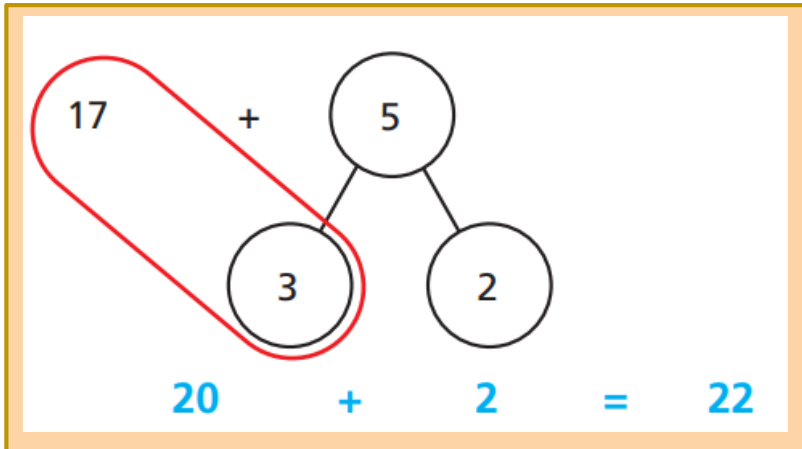


Rekenrek

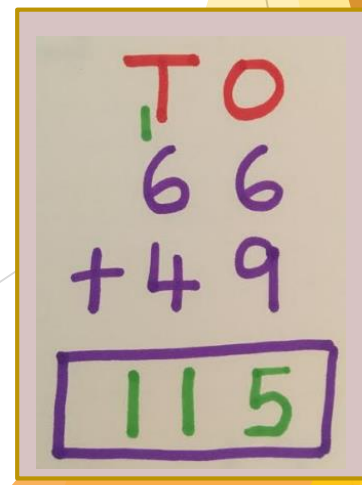
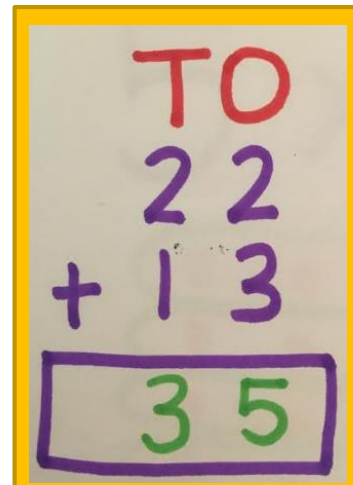
- ▶ <https://apps.mathlearningcenter.org/number-rack/>



Adding skills

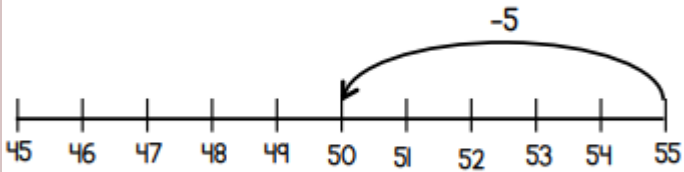


There's more than 1 method!




Subtracting skills


Amir is working out $55 - 8 =$
He uses a number line.



Complete Amir's method.

Subtraction

take away
decrease minus
less
take  left
fewer subtract
how many more
difference



Base ten blocks representing $13 - 5$. On the left, there is one ten rod and three one units. A minus sign is followed by five one units. An equals sign is followed by an empty box.

A diagram showing 13 partitioned into 10 and 3. A red oval encircles the 10 and 3. Below it, the calculation $10 - 2 = 8$ is shown.

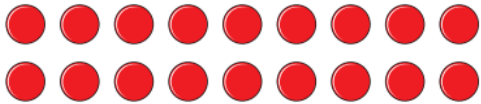
Handwritten column subtraction: $46 - 34 = 12$. The numbers are written in purple, and the result 12 is boxed in purple.

Handwritten column subtraction: $95 - 47 = 48$. The numbers are written in purple, and the result 48 is boxed in purple. A green '8' is written above the 9, and a green line is drawn through the 9 and 5.

There's more than 1 method!

Multiplying skills

Write two multiplications for this array.



$$\square \times \square = \square$$

$$\square \times \square = \square$$

c)



There are equal groups with
in each group.

$$\square + \square = 8$$

$$\square \times \square = 8$$

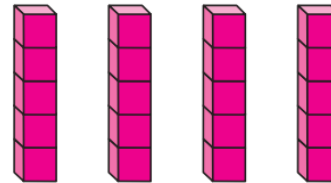
Multiplication



multiply lots of
times groups of
multiplied by array
repeated product
addition

Teaching Ideas
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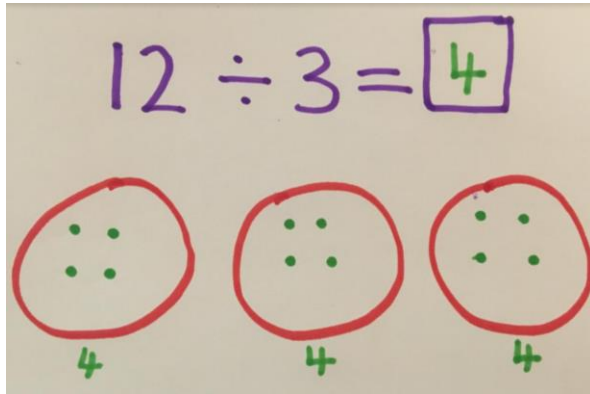
b)



There are equal groups with
in each group.

$$\square + \square + \square + \square = 20$$

Division skills



Division

divide remainder
share share equally
groups of divided by
repeated each
subtraction

Teaching
© www.teachingbase.co.uk

There is a difference between sharing and grouping!

Annie has 12 apples.



She shares them equally into 2 boxes.

Show how Annie shares the apples equally.

Annie has 10 apples.



Annie has some plates.

She wants to put 2 apples on each plate.

Show how Annie groups the apples.

Questioning:

*What operation are you using?
Why?*

How do you know?



What steps did you do to find the answer?

Is it true that..?



Maths is everywhere!



Ways a Parent Can Help with **MATH**

1

Look for shapes and patterns in real life

2

Have your child measure ingredients for a recipe you are making

3

Ask your child to explain the math skills he or she is working on in school

4

When helping your child with homework or school assignments, ask him or her to explain how he or she got an answer

5

Help your child find some appropriate number and problem-solving games to play online

6

Play card or board games that involve counting or patterns

How can you help?

7

Ask your child to count change at the grocery store, or to estimate the total cost while you are shopping

8

Compare:

Which is the tallest?
...the heaviest?
...the longest?
...the smallest?
...the fastest?
...the hottest?
...the most expensive?

9

Have tools such as a ruler, a scale, a calculator, and a measuring tape available to use in your house

10

Encourage your child to track or graph scores or stats for a favorite sports team

11

Use dice or playing cards to make a game out of practicing math facts



Point out ways math is part of “real” life: money, computers, music, art, construction, cooking...

All around us, every day.

A MEASURE OF KNOWLEDGE RETENTION

Retention - A pupil **really understands** a mathematical concept, idea or technique if they can:

- *describe it in their own words;*
- *represent it in a variety of ways*
- *explain it to someone else*
- *create examples and non-examples;*
- *see connections with other facts and ideas;*
- *recognise it in new situations and contexts;*
- *make use of it in various ways, including new situations.*



Questions?



Online resources to support your child

- ▶ <http://www.ictgames.com/mobilePage/>
- ▶ <https://play.trockstars.com>
- ▶ <https://www.topmarks.co.uk/maths-games/5-7-years/counting>



Doggy Division Dinners

Divide the bones between the puppies. This delightful site provides a useful introduction to division.

Tablet-friendly

