



Calculations in Year Two

Applying number facts

$$3 + 15 + 3 = 21$$

I know that double 3 is 6 and I can then count on 6 more from 15. I know that 15 + 5 makes 20 so 15 + 6 must be 21.

$$4 + 5 + 6 = 15$$

I know that 4 + 6 makes ten and then 5 more is 15

If I know....? What else do I know...?

For example;

If I know $3 + 7 = 10$

I also know...

$$30 + 70 = 100 \quad 13 + 7 = 20 \quad 10 - 3 = 7 \quad 100 - 30 = 70$$

If you know $6 + 4 = 10$

*I also know... $4 + 6 = 10$ $60 + 40 = 100$ $10 - 6 = 4$
 $100 - 60 = 40$*

Addition

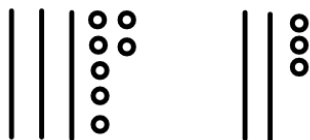
$$69 + 10 =$$

I know that when I add ten the numeral in tens column changes by one ten.

Can I add
 $50 + 26 = 76$
 $24 + 21 = 45$

I can partition (split) a number into tens and units and then re-group and add them together.

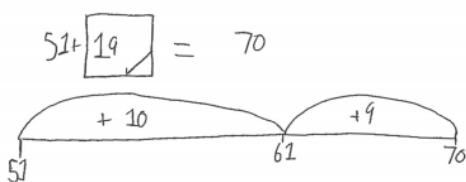
$$37 + 23 =$$



$$\underline{\quad} + 5 = 8$$

I could find the answer to '8 - 5' to help me find the missing number

$$51 + \underline{\quad} = 70$$



$$84 + 37 =$$



Subtraction

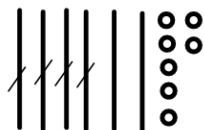
$$18 - 8 =$$

I know that if I take away eight ten will be left over.

$$17 - 6 =$$

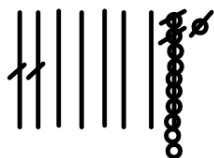
I know that I can take away six from the seven in seventeen which would leave eleven leftover.

$$67 - 40 =$$



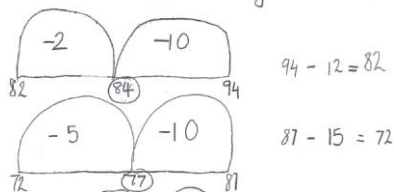
I can draw tens and units/ones to takeaway.

$$81 - 23 =$$



I need to exchange one of my tens for ten units/ones so that I can take away.

Can I subtract 2 digit numbers?



$$60 - \underline{\quad} = 20$$

I could take twenty away from 60 and use the inverse to find the answer.

Multiplication

I know that the multiplication sign also means times and 'lots of'.

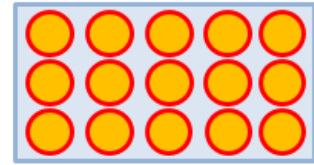
I can draw an array to find the answer.

$$7 \times 10 =$$

I can count in tens seven times on my fingers.

I know that ten seven lots of ten is 70.

What is 5×3 ?



Division

I know that division means 'share'.

$$12 \div 2 =$$

I know that dividing by two is the same as halving.

$$35 \div 5 =$$

Numicon and counter arrays



four lots
of two



two lots
of four

Cuisenaire

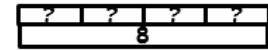


flexible array

doubling



bar models



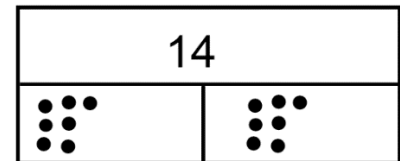
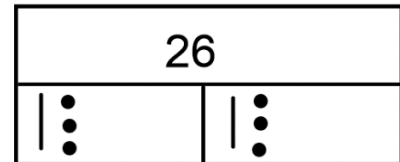
Fractions

Finding $\frac{1}{2}$ using a bar model.

$$\frac{1}{2} \text{ of } 26 = 13$$

$$\frac{1}{4} \text{ of } 20 =$$

$$\frac{3}{4} \text{ of } 20 =$$



Counting in Year Two

I should know how to...

- count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
- count, read and write numbers to 100 in numerals
- count in 2s, 5s and 10s from different multiples to develop recognition of patterns in the number system (for example, odd and even numbers)

I am learning to...

- count in steps of 2, 3, and 5 from 0, and in 10s from any number, forward and backward to at least 100: develop further recognition of number patterns
- count in multiples of 3 to support later understanding of a third
- count using the context of money
- count using the context of time
- count using the context of length, mass and capacity
- count in fractions (halves, quarters and thirds) up to 10, starting from any number and using the $\frac{1}{2}$ and $\frac{2}{4}$ equivalence on the number line (for example, $1\frac{1}{4}$, $1\frac{1}{2}$, $1\frac{3}{4}$, 2).