

Stage 1 – Subtraction

Using Concrete Resources

Children need to use objects, numicon, base 10 and unifix to count to a total before taking away an amount of objects to see how many are left.



$$6 - 2 =$$

Question Starters:

How many do we need to subtract/take away?

How many shall we should we start with?

How many fewer is than?

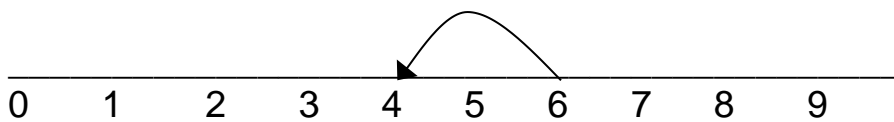
Using a real of
"Mike has six



life scenario can help develop children's understanding subtraction.

pieces of pasta on his plate, he eats two pieces. How many pieces of pasta are left?"

Children should also use a numberline to count backwards.



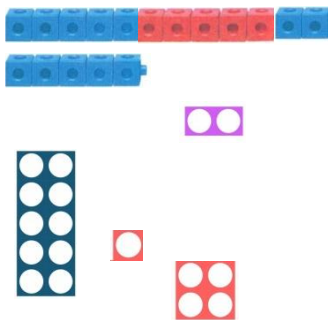
Vocabulary

Number
Less
Numeral
Equal to
How many are left
Many
Addition
Subtract
Take away
How many more
Same
Fewer
Missing number

Finding the Difference

Children will be need to find the difference between two amounts; they will use unifix, numicon, pictoral models and numberlines to support this well.

$$12 - 5 = 7$$



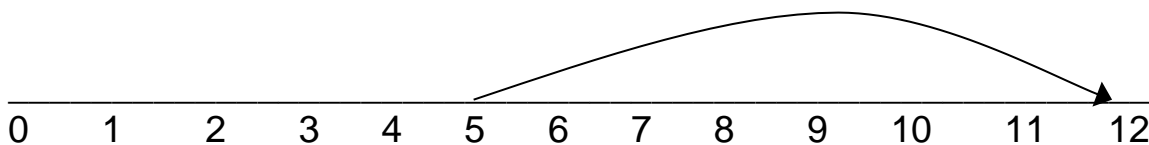
Steps to success:

Make the larger number.

Make the smaller number.

Place next to/on top of the larger number.

Count on from the smaller number to the larger number to find the difference.



Examples of question starters:

Which number should I put in my head?

What do I need to count to?

What is the difference between ... and ...?

Stage 2 – Subtraction

Using a Hundred Square

Do children know...

that all the numbers with ... ones are in the same columns?

which way to count when they reach a tens number?

how to add and subtract one ten?

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

Children should use these to subtract tens and ones after they have partitioned the number that they are subtracting.

$$58 - 23 =$$

Steps to Success:

Start with the largest number.

Partition the other number so you know how any tens and ones to subtract.

Find your starting number on the hundred square.

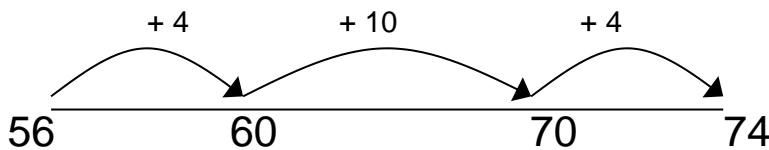
Subtract your tens.

Subtract your ones.

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

Finding the Difference

$$74 - 56 = 18$$



$$10 + 4 + 4 = 18$$

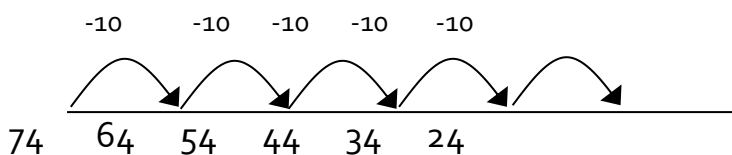
Steps to Success:

1. Draw the numberline.
2. Write the smallest number at the start of the line.
3. Add as many as you need to take you to the next ten. Record how many you have added above the jump.
4. Add in tens until you reach the tens number you are counting to. Record how many tens you have added above the jump.
5. Add in ones to take you to the biggest number. Record how many ones you have added above the jump.
6. Add the numbers above the jumps to find the difference.

Number Line Subtraction

$$74 - 56 =$$

Step 1: Draw the numberline, starting with the largest number at the left. Take away the tens.



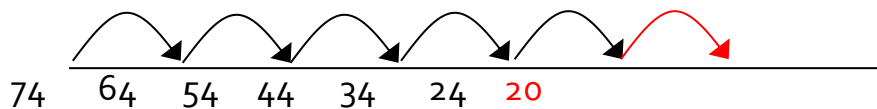
Step 2: You need to take away the ones. If you need to bridge through a ten, like in this question, take away as many ones to get you to the nearest tens number.

$$-10 \quad -10 \quad -10 \quad -10 \quad -10 \quad -4$$

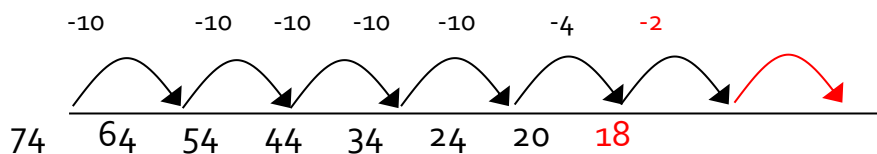
Vocabulary

- Number
- More
- Numeral
- Equal to
- Equivalent to
- Many
- Addition
- Add
- Altogether
- Sum
- Total
- How many more
- Same
- Greater than
- Less than
- Place value
- Partition
- Decompose
- Value
- Digit
- Ones
- Tens
- Hundreds
- Bridging through ten
- Tens boundary

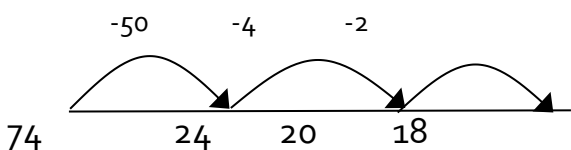




Step 3: Knowledge of basic bonds are important for this step. If bridging has occurred, take the remaining numbers left to make the total ones. The answer is the number at the end of the number line.



When children are confident with subtracting tens, they can subtract the full multiple of ten without breaking it down.

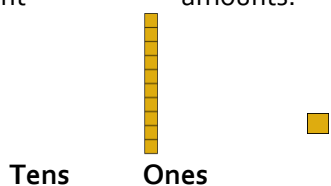


Questions to ask:

- Which number should we start with? Why?
- Should we subtract the tens or the ones first?
- How are we going to minus ... from ...?
- When bridging.. how do we know how many to subtract in each jump?

Using Base 10 in preparation for Decomposition Method

Children should first become familiar with the base 10 equipment. They should be able to use the base 10 to represent different amounts.



It is essential that when using the base10 they are laid out vertically to represent the decomposition method. Place value charts should be used during these sessions.

No Decomposing

49-23 =

Steps to Success:

- Step 1: Make the larger number using the base 10.
- Step 2: Always subtract the ones first. "I have 9 ones, I need to subtract 3 ones"
- Step 3: Move the 6 ones to the bottom of the place value chart so we know we have finished with the column.

T	O

Question Examples:

- Which column should I start with?
- Why do I need to start with the ones column?
- How many ones do I need to subtract?
- How many ones do I have left?
- How many tens do I have left?
- How could I check my answer?

Step 4: Subtract the tens, moving them to join the ones to show you have finished with the tens column.

Decomposition

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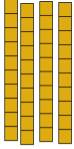

$42 - 18 =$

Step 1: Make the largest number using the base 10.

Step 2: Subtract the ones first.

"I have two ones in my ones column, can I subtract 8?"

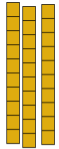
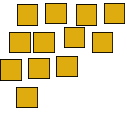
"When we had **too many** units we had to regroup, now we don't **have enough** units so we need to do the inverse/opposite, we need to decompose a ten"

Step 3: Take a ten from the tens column and decompose for ten ones.

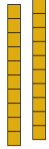

Step 4: Place these in the ones column with the other ones.

You should now have ten more than the original ones in the column.

T	O
	

Step 5: Now you have decomposed your ten you will be able to subtract your ones from the ones column. Move the ones to the bottom of the chart so we know we have finished the column.

Step 6: Take away your tens, moving them to the bottom of the chart to show we have finished.

T	O
	

Question Examples:

Do I have enough to subtract?

What is decomposing?

How many ones should I have after decomposing a ten?

How can I check my answer is correct?

How do I know if I have subtracted all of the number I need to subtract?