

L.I. To find change.

Recommended time approx 1 hour

Steps to success

- I know there are different strategies to find change.
- I can choose the strategy that works best for me.
- I can find change from varying amounts.



Today you will practising finding change.

You could ask someone in your house to pretend to buy something from your shop. You pretend to be the shopkeeper and find the correct change!

There are different strategies you can use to help you find change. You choose the method that makes sense to you!

Remember finding change is subtraction but you can also count on.

Whichever strategy you choose remember to put p if your change is less than one pound and use the £ sign if it is more.
Next use both at the same time!

£1.20

54p

Strategy 1- Mental Subtraction (taking away in your head)

REVERSE your number bonds to 100
e.g. if you know $30+70=100$ then you
Know $100-30=70$ and $100-70=30$

Use your place value knowledge!

e.g.

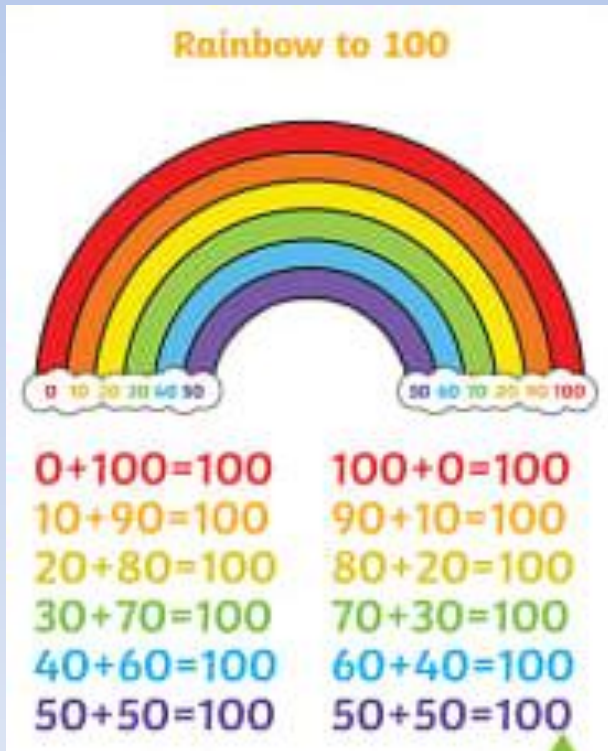
$$50p - 20p =$$

You shouldn't need to count back 20 you can just
Look at the number in the tens and subtract 2...

$$50p - 20 = 32p$$



5 tens subtract 2 tens=3 tens and 3 tens are 30!



Strategy 1- Mental subtraction (taking away your head)

Mental Maths Strategies

Common Zeros

For adding and subtracting numbers with the same number of zeros.

$$\begin{array}{l} 60 + 130 = \\ 6 \text{ tens} + 13 \text{ tens} = 19 \text{ tens} \\ 60 + 130 = 190 \end{array}$$

or

$$\begin{array}{l} 1500 - 200 \\ 15 \text{ hundreds} - 2 \text{ hundreds} = 13 \text{ hundred} \\ 1500 - 200 = 1300 \end{array}$$

Compensation for 8 or 9

For adding or subtracting where a number has 8 or 9 in units.

Add 9 - add 10 and subtract 1
Subtract 8 - subtract 10 and add 2

Use strategy for:

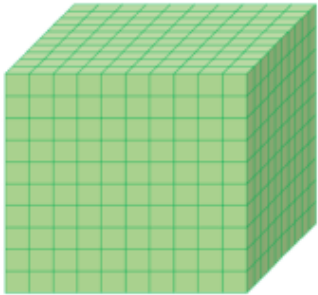
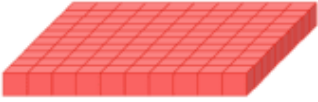



Add 39 - add 40 and subtract 1
Subtract 79 - subtract 80 and add 1

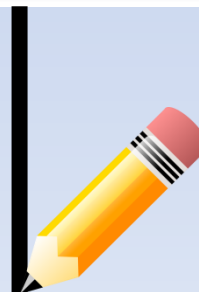
$$\begin{array}{l} 34 + 9 = \\ 34 + 10 = 44 \\ 44 - 1 = 43 \end{array}$$

or

$$\begin{array}{l} 83 - 38 = \\ 83 - 40 = 43 \\ 43 + 2 = 45 \end{array}$$

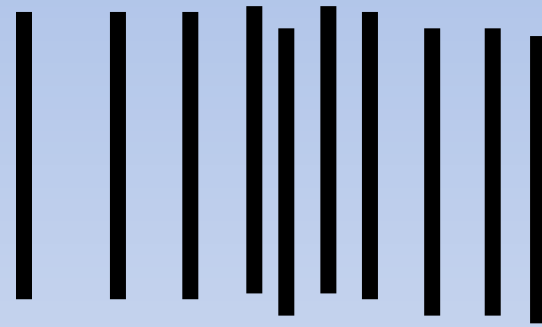
Strategy 2- draw dienes to represent the numbers you are subtracting

Thousands	Hundreds	Tens	Units/Ones
			
1000	100	10	1
<small>www.mathswithmum.com </small>			



Strategy 2 – Cross out what you are subtracting

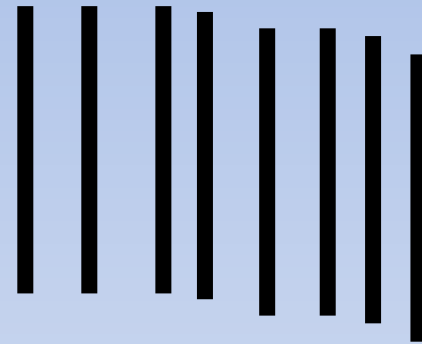
Remember £1 is 100 pennies and 100 is ten 10's. So draw 10 ten sticks!



$$\text{£}1 \quad \text{—} \quad 21\text{p} \quad \text{=}$$

Strategy 2 – Cross out what you are subtracting

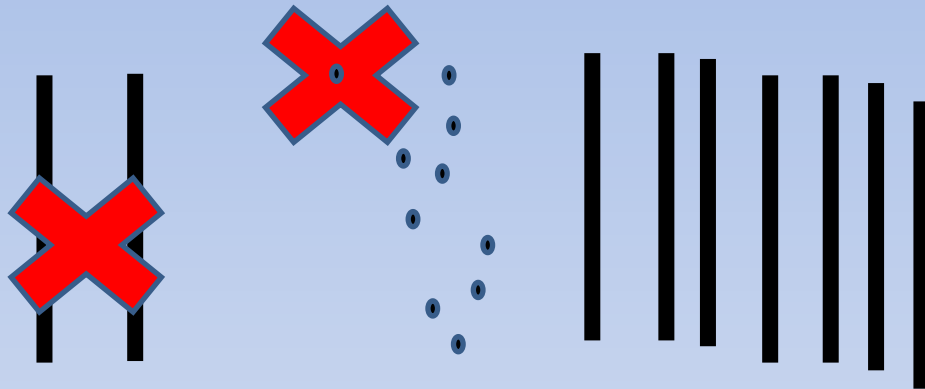
Now I've subtracted 20p but how do I subtract the 1p left? Can you remember?



$$\text{£}1 \quad \text{—} \quad 21\text{p} \quad \text{=}$$

You need to exchange a ten stick for ten ones!

Now I can subtract the 1p and add up what's left!

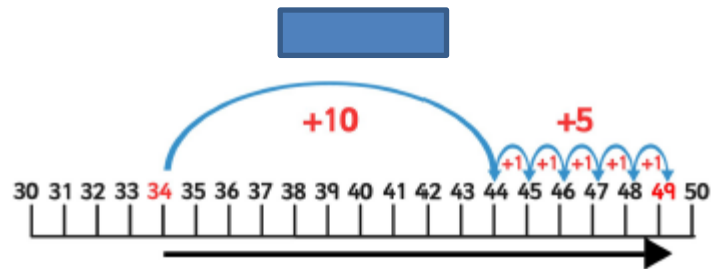


$$£1 \quad \text{—} \quad 21\text{p} \quad \text{=} \quad 79\text{p}$$

Strategy 3- Count on- on a numberline or 100 square (I put both of these in your pack)

Counting On

For adding and subtracting numbers close to each other.
This strategy works well with a number line or square.
You can even do it mentally!



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

Imagine you had 49p and spent 35p. You would be left with 15p.

Strategy 4- subtract using the expanded method.

$$\begin{array}{r} 40 \\ 50 \rightarrow \cancel{50} \text{ and } | 0 \\ - 33 \rightarrow 30 \text{ and } 3 \\ \hline 17 \quad 10 \text{ and } 7 \end{array}$$

Look at the ones- you can't do $0-3$ so you need to exchange 10 from the tens column. Then you can do $10-3=7$.

Your turn!

In your jotter work out at least 5 calculations finding change. Choose a strategy that you understand.

Mild: Find change for items from £1

Spicy: Find change from items from £5

Hot: Find change from items from £10

Remember, you have also already decided how hard a challenge you want with how you priced your items on Monday.

Let's reflect on our learning!

Can/Do you now...

...know there are different strategies to find change?

...can choose the strategy that works best for me?

...can find change from varying amounts?

Not achieved the learning intention- I've answered 'no' to all of the above.
Go through the slides again.

Partly achieved the learning intention- I've answered 'yes' to some of the above
Goo job! We'll keep practising.

Achieved the learning intention- I've answered 'yes' to all of the above.
Well done!

