



Please do not print me!

Remember to print from page 2 to avoid wasting paper and ink.
If you do find me, then visit [twinkl.co.uk](http://www.twinkl.co.uk) to find out why **millions of educators** worldwide love twinkl.

A brief word about copyright...

By downloading this resource, you agree to the following:



You may use this resource for personal and/or classroom use only.

In order to support us, we ask that you always acknowledge www.twinkl.co.uk as the source of the resource. **If you love these resources, why not let others know about Twinkl?**



You must not reproduce or share this resource with others in any form. They are more than welcome to download the resource directly from us.

You must not host or in any other way share our resources directly with others, without our prior written permission.

We also ask that this product is not used for commercial purposes and also that you do not alter the digital versions of our products in any way.

Thank you for downloading!

Twinkl Educational Publishing. Your first choice for easy to use, trusted and high quality teaching materials for educators and parents worldwide - professionally crafted materials with a personal touch.

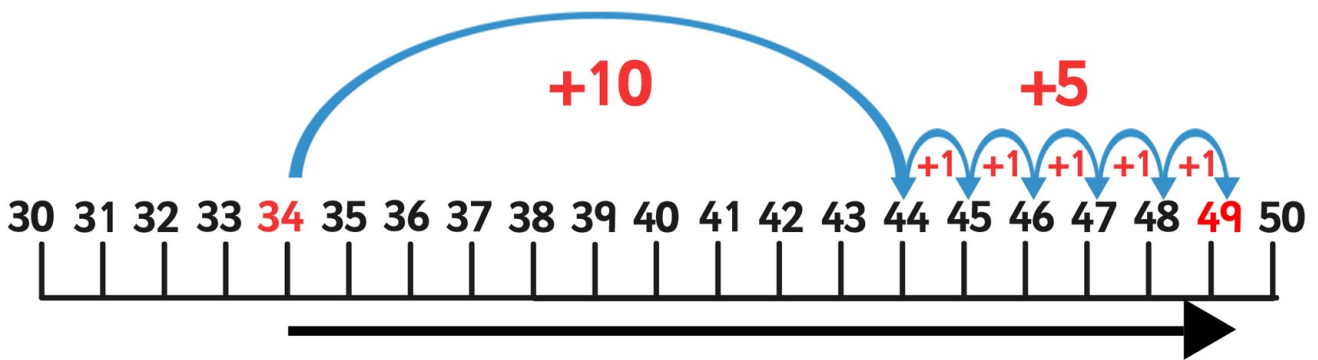
[twinkl.co.uk](http://www.twinkl.co.uk)

Mental Maths Strategies

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!

$$34 + 15 =$$



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

Mental Maths Strategies

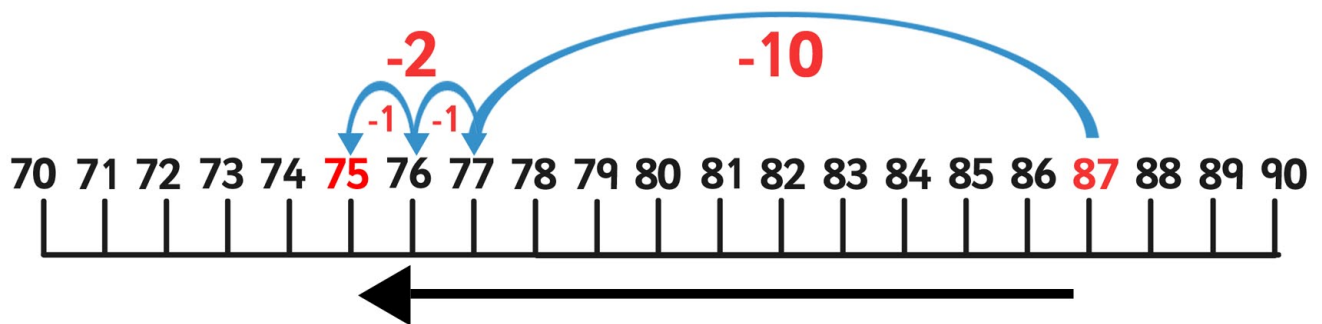
Counting Back

For subtracting smaller numbers.

This strategy works well with a number line or square.

You can even do it mentally!

$$87 - 12 =$$



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

Near Doubles

For adding similar numbers.

Double one of the numbers and adjust by adding or subtracting the difference.

$$26 + 25 =$$

I know double 25 is 50

$$26 + 25 =$$

1 more than double 25 = 51

Near Halves

For subtracting when the number is a near half.

$$25 - 12 =$$

I know half of $24 = 12$

$$25 - 12 = 13$$

(25 is 1 more than 24, so answer is
1 more than $12 = 13$)

Mental Maths Strategies

Using Pairs to Ten

For adding where numbers add to 10, or ends with a 0.

$$23 + 67 =$$

$$\text{I know } 3 + 7 = 10$$

$$23 + 67 = 20 + 60 + 10 = 90$$

$$160 - 37 =$$

$$\text{I know } 10 - 7 = 3$$

$$160 - 37 = 160 - 30 - 7 = 130 - 7 = 123$$

Mental Maths Strategies

Part, Part, Whole

Use known facts to add and subtract.

$$17 - 8 =$$

I know $8 + 9 = 17$

so

$$17 - 8 = 9$$

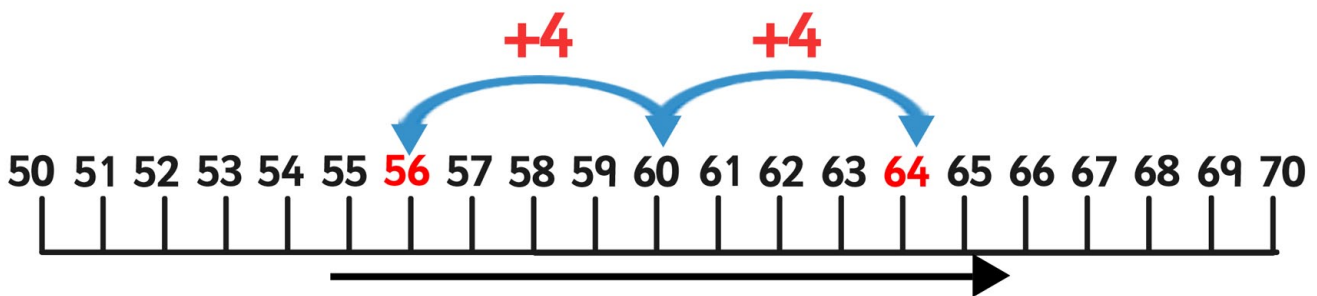
Mental Maths Strategies

Make Ten and Then Some

Add or subtract past tens.

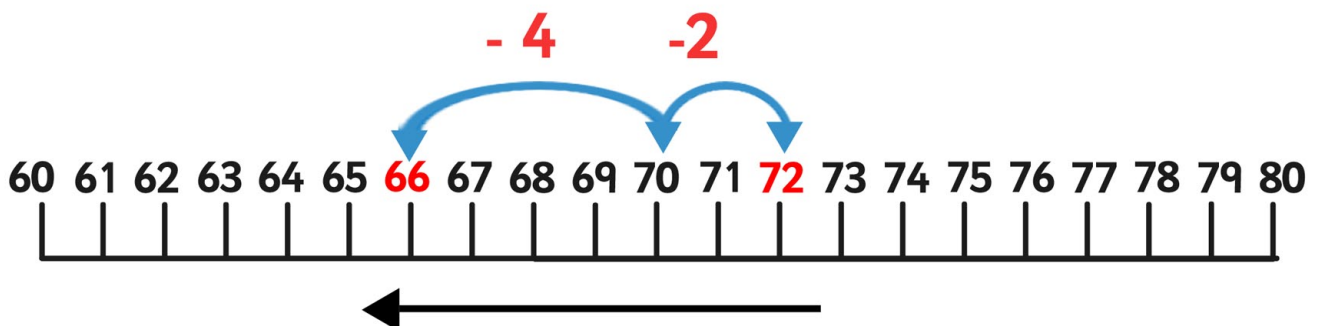
$$56 + 8 =$$

$$56 + 4 = 60 \quad \text{so} \quad 56 + 4 + 4 = 64$$



$$72 - 6 =$$

$$72 - 2 = 70 \quad \text{so} \quad 72 - 2 - 4 = 66$$



Mental Maths Strategies

Front-end Adding

For addition.

$$\begin{array}{r} 69 \\ \downarrow \\ 60 \\ \downarrow \\ 9 \end{array} + \begin{array}{r} 37 \\ \downarrow \\ 30 \\ \downarrow \\ 7 \end{array} =$$
$$\begin{array}{r} 60 \\ \downarrow \\ 9 \end{array} + \begin{array}{r} 30 \\ \downarrow \\ 7 \end{array} = 90$$
$$90 + 16 = 106$$

90
16
+

106

Mental Maths Strategies

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

$$\begin{aligned}34 + 9 &= \\34 + 10 &= 44 \\44 - 1 &= 43\end{aligned}$$

or

$$\begin{aligned}83 - 38 &= \\83 - 40 &= 43 \\43 + 2 &= 45\end{aligned}$$

Use Multiples of 25

For adding or subtracting when numbers are near multiple of 25.

Add or subtract and compensate.

$$\begin{aligned}76 + 48 &= \\75 + 50 &= 125 \\125 + 1 - 2 &= 124\end{aligned}$$

or

$$\begin{aligned}174 - 128 &= \\175 - 125 &= 50 \\50 - 1 - 3 &= 46\end{aligned}$$

Common Zeros

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

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

or

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

Mental Maths Strategies

Trailing Zeros

For multiplying numbers ending in zero.

$$\begin{aligned}40 \times 8 &= \\4 \text{ tens} \times 8 &= 32 \text{ tens} \\40 \times 8 &= 320\end{aligned}$$

or

$$\begin{aligned}70 \times 60 \\7 \text{ tens} \times 6 \text{ tens} &= 42 \text{ hundreds} \\70 \times 60 &= 4200\end{aligned}$$