

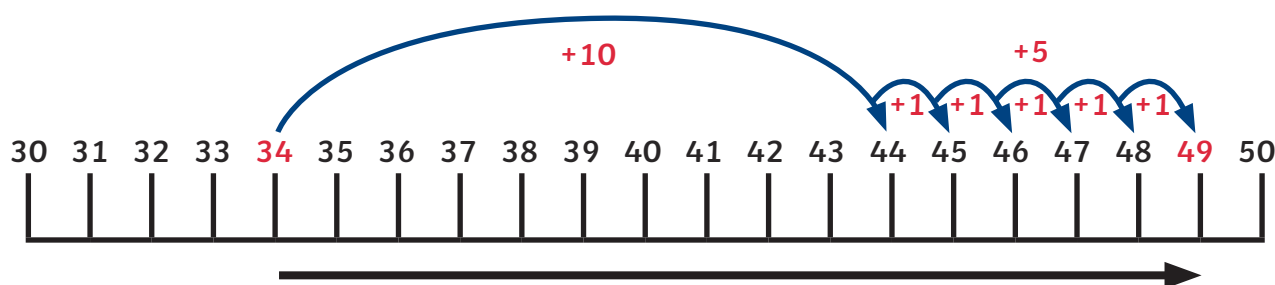


# Mental Maths Strategies

## 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

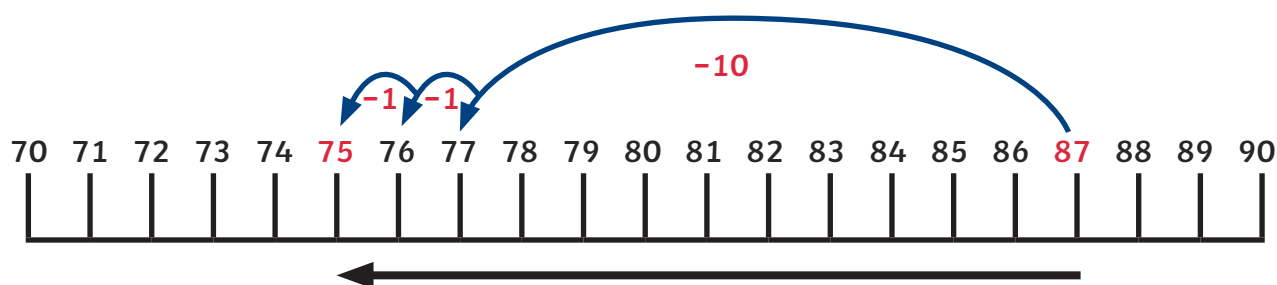


# Mental Maths Strategies

## 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



## Mental Maths Strategies

# 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



## Mental Maths Strategies

# Near Halves

For subtracting when the number is a near half

$$25 - 12 =$$

I know half of  $24 = 12$

$$25 - 12 = 13$$

(25 is 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.

$$23 + 67 =$$

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

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

$$160 - 37 =$$

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

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



## Mental Maths Strategies

# Part, Part, Whole

Use known facts to add and subtract.

$$17 - 8 =$$

$$\text{I know } 8 + 9 = 17$$

SO

$$17 - 8 = 9$$



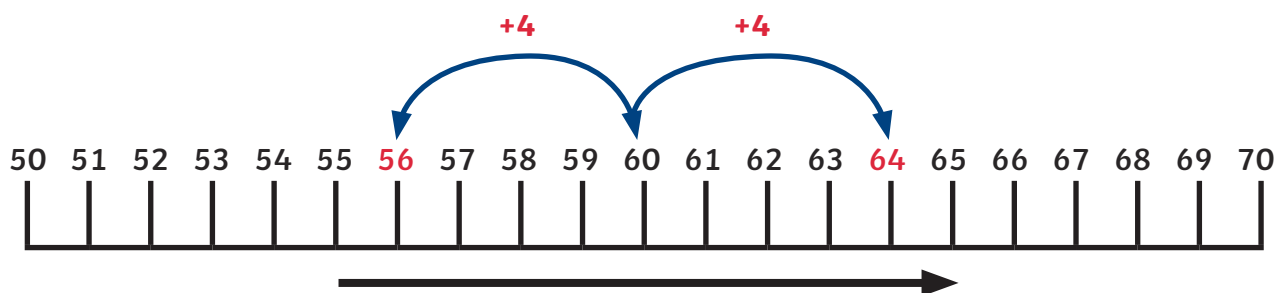
## Mental Maths Strategies

# Make Ten and Then Some

Add or subtract past tens.

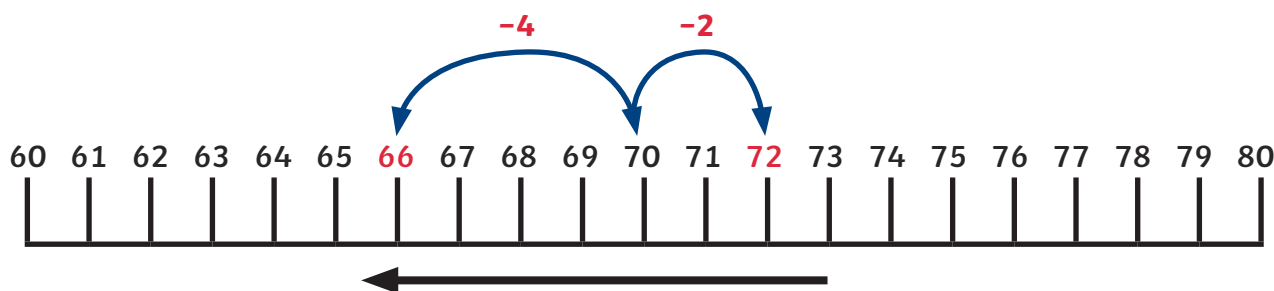
$$56 + 8 =$$

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



$$72 - 6 =$$

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





## Mental Maths Strategies

# Front-end Adding

For addition.

$$69 + 37 =$$

$$60 + 30 =$$

$$9 + 7 =$$

$$90 + 16 =$$

$$90 + 16 =$$

90
16
<hr/>
106
<hr/>





# Mental Maths Strategies

## Compensation for 8 or 9

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

**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

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



## Mental Maths Strategies

# 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

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



# Mental Maths Strategies

# Common Zeros

For adding or subtracting 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.

$$40 \times 8 =$$
$$4 \text{ tens} \times 8 = 32 \text{ tens}$$
$$40 \times 8 = 320$$

or

$$70 \times 60$$
$$7 \text{ tens} \times 6 \text{ tens} = 42 \text{ hundreds}$$
$$70 \times 60 = 4200$$