Mental addition

Use different methods to add numbers mentally.

Use patterns:	Use rounding:	Use near doubles:
$6 + 7 = 13$	$37 + 9 \rightarrow 37 + 10 - 1 = 46$	$18 + 19 = 18 + 18 + 1 = 37$
$86 + 7 = 93$	$23 + 19 \rightarrow 23 + 20 - 1 = 42$	$25 + 26 = 25 + 25 + 1 = 51$
$60 + 70 = 130$		

If you need to add 2-digit numbers in your head, it helps to break the numbers up and add the tens then the ones.

Example

$85 + 57$

Use these three steps:
1. Hold the bigger number in your head: 85
2. Break 57 into $50 + 7$. Add the tens: $85 + 50 = 135$
3. Add the ones: $135 + 7 = 142$

1 Answer each set as quickly as you can.

a)	b)	c)	d)
$7 + 9$	$40 + 70$	$45 + 19$	$43 + 43$
$4 + 13$	$30 + 90$	$32 + 9$	$27 + 27$
$6 + 8$	$60 + 70$	$27 + 29$	$51 + 51$
$11 + 7$	$90 + 80$	$19 + 55$	$18 + 18$
$9 + 8$	$30 + 70$	$29 + 42$	$34 + 34$
$6 + 12$	$60 + 110$	$63 + 9$	$61 + 60$
$9 + 9$	$130 + 40$	$28 + 19$	$35 + 36$
$7 + 6$	$50 + 140$	$29 + 43$	$43 + 44$
$8 + 5$	$90 + 80$	$9 + 45$	$27 + 28$
$6 + 9$	$130 + 70$	$57 + 29$	$38 + 39$

LIVEWORKSHEETS

2 Choose a mental method and write the answers to these.

   a) What number is nineteen more than fifty-seven?

   b) In Grade 5 there are two classes. One has 38 pupils the other has 37. How many children are there in total?

   c) Add together sixty and ninety.

   d) A bus has 34 passengers and another 17 get on the bus. How many passengers are there altogether on the bus now?

   e) What is the total weight of two bags weighing 25 kg and 26 kg?

3 Match the pairs of numbers that total 124. One pair has been completed for you.

33 79 45 35 28 37 87 62 89 96 62 91

$$28 + 96 = 124$$

4 Work these out using a mental method.

   a) $38 + 56 =$ **b)** $54 + 27 =$ **c)** $34 + 76 =$ **d)** $78 + 65 =$

   e) $39 + 74 =$ **f)** $38 + 44 =$ **g)** $29 + 79 =$ **h)** $66 + 48 =$

Try this

The digits 2, 3, 4, 5, 6 and 7 are missing from these. Complete them.

$3\,\square + \square\,5 = 82$ $\square\,9 + 1\,\square = 82$ $\square\,6 + \square\,6 = 82$

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Mental subtraction

When you subtract numbers in your head, look at the numbers to help you choose the best method to find the answer. Here are some possible methods, but choose the one that works for you.

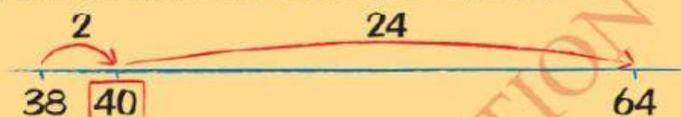| Use patterns:	Use rounding:	Use inverses:
$13 - 8 = 5$	$24 - 9 \rightarrow 24 - 10 + 1 = 15$	$25 - \underline{} = 18$
$53 - 8 = 45$	$35 - 19 \rightarrow 35 - 20 + 1 = 16$	$18 + \underline{} = 25$
$130 - 80 = 50$		$18 + 7 = 25$
		$25 - 7 = 18$

A good method for subtracting mentally is to find the difference between the numbers by counting on.

Example

What is the difference between 38 and 64?

    2   **24**

    38   40   64

This number line shows exactly what goes on in your head. Count on from 38 to 40. Hold the 2 in your head.

40 to 64 is 24.   24 + 2 is 26.   So $64 - 38 = 26$

1 Answer each set as quickly as you can.

a)	b)	c)	d)
$17 - 9$	$140 - 70$	$32 - 19$	$93 - 87$
$14 - 6$	$90 - 30$	$23 - 9$	$82 - 76$
$16 - 8$	$160 - 50$	$45 - 29$	$95 - 89$
$12 - 7$	$130 - 80$	$37 - 9$	$73 - 68$
$19 - 6$	$150 - 70$	$44 - 29$	$51 - 49$
$16 - 12$	$160 - 110$	$63 - 19$	$62 - 56$
$13 - 9$	$120 - 90$	$54 - 19$	$44 - 38$
$17 - 6$	$150 - 120$	$68 - 9$	$63 - 59$
$18 - 15$	$190 - 80$	$84 - 29$	$81 - 78$
$16 - 11$	$150 - 90$	$57 - 19$	$72 - 67$

2 Answer these.

a) What is the difference between 32 and 59?

b) What is 43 subtract 25?

c) How much less is 36 than 63?

d) What is 95 take away 77?

e) What is the difference between 72 and 43?

f) What is 68 subtract 39?

3 Write the missing numbers on these difference grids.

a)

	53	17	84
25	28		
96	43		12
60			

b)

	62	19	54
37			
49		30	
23			

4 Use these numbers to answer the following:

83   24   49   75   56

a) Which two numbers have a difference of 32?

b) Which number is 46 less than 95?

c) Which two numbers have a difference of 8?

d) What is the answer if you subtract the smallest number from the greatest number?

e) Which two numbers have a difference of 25?

Try this

Make different 2-digit numbers with these digits.

3   4   6   9

Make the largest difference.
Make the smallest difference.
Make a difference as near as possible to 50.

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LIVEWORKSHEETS