

Add and subtract whole numbers

Everyday life

You will see whole numbers on:

- Digital clocks
- The front of a bus
- Lottery tickets
- People's salaries
- Gas and electricity meters.

Examples



Twelve hundred hours
Twelve o'clock
Midday



Twenty-seven



Fourteen, twenty-three, twenty-seven, thirty, forty-two, forty-six

£18,500: Eighteen thousand, five hundred pounds

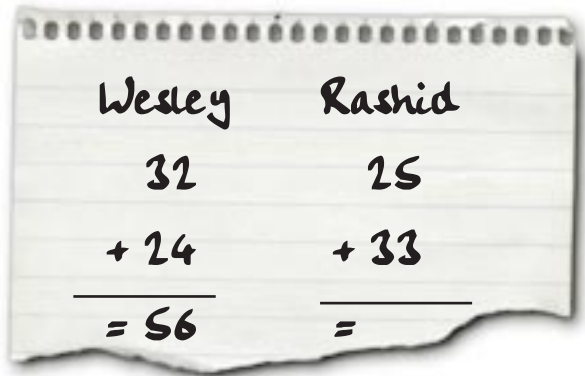


Six – seven – two – zero – five – six - two

You may need to add and subtract numbers when you:

- Play a game of darts
- Work out how far you have to go on a journey
- Check the number of bottles left, if you're working behind a bar
- Find out how much gas or electricity you've used.

Add two whole numbers – no carrying



A photograph of a white notepad with a spiral binding on the left. The notepad shows two columns of handwritten numbers. The first column is for Wesley and the second is for Rashid. Each column shows a two-digit number, a plus sign, another two-digit number, a horizontal line, and the sum. Wesley's calculation is 32 + 24 = 56. Rashid's calculation is 25 + 33 = .

Wesley	Rashid
32	25
+ 24	+ 33
<hr/>	<hr/>
= 56	=

Who's winning after two goes?

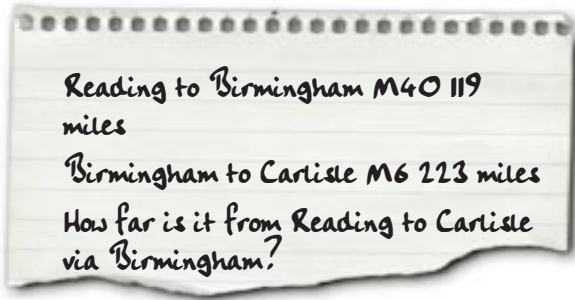
Wesley has scored 56 and Rashid 58. So Rashid is winning.

Follow these steps:

- 1 Write down the numbers. Make sure that the units and tens of each number are under each other.
- 2 Add the numbers.
- 3 Use zeros to fill any empty spaces.

Practice 1 ➡

Add two whole numbers – carrying



Follow these steps:

- 1 Write down the numbers. Make sure the numbers line up exactly in columns as shown.
- 2 Add each number, starting from the right.
- 3 If you get ten or more, write the unit in the answer. Then write the number 1 just below the last figure in the next column to the left so you remember it.
- 4 Add the numbers in this next column. Don't forget to add the number 1.

If you get muddled up with columns, try this way of splitting numbers.

$$\begin{array}{r} 119 \\ 223 \\ \hline \end{array} = 100 + 10 + 9$$
$$= 200 + 20 + 3$$
$$= 300 + 30 + 12$$
$$= 342$$

Subtract two small whole numbers

Stock sheet (weekly)	
Week beginning	Bottles in stock
3/4	68
10/4	45
bottles sold	23

How many bottles were sold between 3 April and 10 April?

$$\begin{array}{r} 68 \\ - 45 \\ \hline = 23 \end{array}$$

Follow these steps:

- 1 Write down the numbers. Make sure the numbers line up exactly in columns as shown.
- 2 Take the bottom number from the top number in each column. Start from the right. Put the answer below the line.

What do you do when one of the top numbers is smaller than the bottom number?

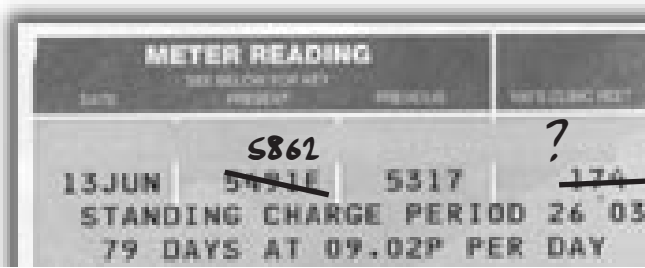
Stock sheet (weekly)	
Week beginning	Bottles in stock
3/4	74
10/4	56
bottles sold	18

$$\begin{array}{r} 74 \\ - 56 \\ \hline \end{array} = \begin{array}{r} 70 + 4 \\ - 50 - 6 \\ \hline 20 - 2 \\ = 18 \end{array}$$

Diagram illustrating the borrowing process for 74 - 56:

- 74 is decomposed into 70 + 4.
- 56 is decomposed into 50 + 6.
- The 4 is borrowed from the 70, making it 60 + 14.
- The calculation becomes 60 + 14 - 50 - 6.
- 60 - 50 = 10 and 14 - 6 = 8.
- The final result is 10 + 8 = 18.

Subtract two big whole numbers



$$\begin{array}{r} 5862 \\ - 5317 \\ \hline = 545 \end{array}$$

$$\begin{array}{l} 5862 \\ -5317 \\ \hline \end{array} \rightarrow \begin{array}{l} 5000 + 800 + 50 + 12 \\ -5000 + 300 + 10 + 7 \\ \hline 500 + 40 + 5 \\ = 545 \end{array}$$

How do you deal with zeros?



$$\begin{array}{l} 509 \\ -123 \\ \hline \end{array} \rightarrow \begin{array}{l} 400 + 100 + 9 \\ 100 + 20 + 3 \\ \hline 300 + 80 + 6 \\ = 386 \end{array}$$

Practice 1: Add two whole numbers – no carrying

Mick	Sarah
58	36
+21	+23
<hr/>	<hr/>

Alex	Joe
23	33
+45	+65
<hr/>	<hr/>

Stock control sheet – stationery

Item	count
boxes of pencils	23
boxes of pens	13
reams of paper	21
lever arch files	12
Total items	<input type="text"/>

Sales staff	Items sold
Mick	22
Sarah	143
John	33
	<hr/>
Total sales	

Practice 2: Add two whole numbers – carrying



Folkestone Port to junction 5 on the M25 = 64 miles
Junction 5 to junction 10 on the M25 = 27 miles
Junction 10 to Guildford = 7 miles
Folkestone to Guildford =

Food	Energy (kcal)
Muesli with semi-skimmed milk	156
Boiled egg	74
Wholemeal toast (2 bits)	156
Low fat spread	66
Orange juice	50
Tea with milk	7
TOTAL ENERGY INTAKE:	



Monthly income	
Your take-home pay	1250
Your partner's take-home pay	850
Total income	<input type="text"/>

Will the data fit on the on the floppy disc?



Practice 3: Subtract two small whole numbers

Stock sheet (weekly)

Week beginning	Bottles in stock
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3/4	57
-----	----

10/4	32
------	----

bottles sold	
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Stock sheet (weekly)

Week beginning	Bottles in stock
----------------	---------------------

17/4	66
------	----

24/4	37
------	----

bottles sold	
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Practice 4: Subtract two big whole numbers



METER READING			
DATE	PRESENT	PREVIOUS	UNPAID FEE
13 JUN	5480 5491E	5317	? 174
STANDING CHARGE PERIOD 26 03			
79 DAYS AT 09.02P PER DAY			
FOR STANDING CHARGE			

METER READING			
DATE	PRESENT	PREVIOUS	UNPAID FEE
13 JUN	5620 5491E	5317	? 174
STANDING CHARGE PERIOD 26 03			
79 DAYS AT 09.02P PER DAY			
FOR STANDING CHARGE			

	Jun	Jul
Income	4645	4700
Expenses	3035	3096

Monthly balance

	<u>4645</u>	<u>4700</u>
	<u>- 3035</u>	<u>- 3096</u>

Practice 1: Add two whole numbers – no carrying

Mick	Sarah
58	36
+21	+23
<hr/>	<hr/>
79	59

Alex	Joe
23	33
+45	+65
<hr/>	<hr/>
68	98

Stock control sheet – stationery

Item	count
boxes of pencils	23
boxes of pens	13
reams of paper	21
lever arch files	12
Total items	69

Sales staff	Items sold
Mick	22
Sarah	143
John	33
Total sales	198

Practice 2: Add two whole numbers – carrying

Folkestone Port to junction 5 on the M25 = 64 miles

Junction 5 to junction 10 on the M25 = 27 miles

Junction 10 to Guilford = 7 miles

Folkestone to Guilford = 98 miles

Will the data fit on the on the floppy disc?

$$\begin{array}{r} 685,456 \text{ bytes} \\ +735,856 \text{ bytes} \\ \hline 1,421,312 \end{array}$$

Yes, just!

Food	Energy (kcal)
Muesli with semi-skimmed milk	156
Boiled egg	74
Wholemeal toast (2 bits)	156
Low fat spread	66
Orange juice	50
Tea with milk	7
TOTAL ENERGY INTAKE:	509

Monthly income

Your take-home pay	1250
Your partner's take-home pay	850
Total income	£2,100

Practice 3: Subtract two small whole numbers

Stock sheet (weekly)

Week beginning	Bottles in stock
----------------	---------------------

3/4	57
-----	----

10/4	32
------	----

bottles sold	25
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Stock sheet (weekly)

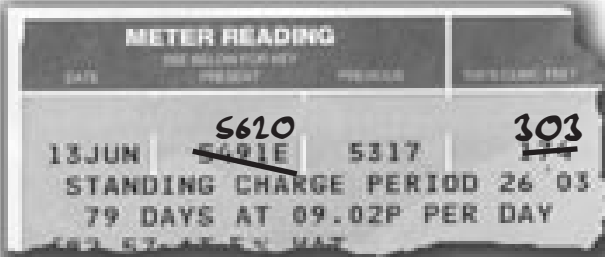
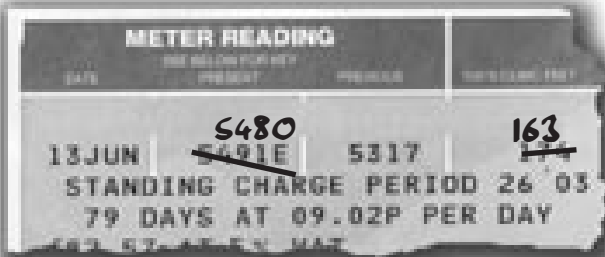
Week beginning	Bottles in stock
----------------	---------------------

17/4	66
------	----

24/4	37
------	----

bottles sold	29
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Practice 4: Subtract two big whole numbers



	Jun	Jul
Income	4645	4700
Expenses	3035	3096
Monthly balance	1610	1604
	<i>4645</i>	<i>4700</i>
	<u><i>-3035</i></u>	<u><i>-3096</i></u>
	<i>1610</i>	<i>1604</i>