

## Subtract whole numbers with more than 4 digits (column method)

- 1 Complete the subtractions:

a) 
$$\begin{array}{r} 7315 \\ - 2104 \\ \hline \end{array}$$

c) 
$$\begin{array}{r} 7315 \\ - 3241 \\ \hline \end{array}$$

b) 
$$\begin{array}{r} 7315 \\ - 5420 \\ \hline \end{array}$$

- 2 Complete the calculations.

a) 
$$\begin{array}{r} 8434 \\ - 2104 \\ \hline \end{array}$$

c) 
$$\begin{array}{r} 46832 \\ - 19024 \\ \hline \end{array}$$

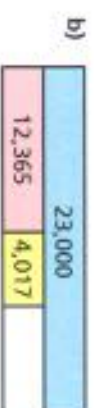
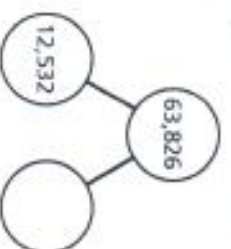
b) 
$$\begin{array}{r} \text{£ } 88200 \\ - \quad 6100 \\ \hline \end{array}$$

d) 
$$\begin{array}{r} 34520 \\ - \quad 679 \\ \hline \end{array}$$

- 3 A family has £22,658 in the bank. They spend £3,600 on a holiday. How much money do they have left?

- 4 It is 10,553 miles from London to Sydney. It is 9,929 miles from New York to Sydney. How much further away is Sydney from London than from New York?

- 5 Complete the models.



- 6 Mr Hall has written these subtractions on the board.

$$45,541 - 25,865$$

$$68,945 - 34,758$$

Rosie's workings

$$\begin{array}{r} 25865 \\ - 45541 \\ \hline 20324 \end{array}$$

Whitney's workings

$$\begin{array}{r} 68945 \\ - 34758 \\ \hline 34213 \end{array}$$

Explain the mistakes that Rosie and Whitney have made.

- 7 Complete the subtractions.

a)  $10,004 - 9,995$

b)  $10,000 - 6,727$

c)  $15,923 - 9,998$

How did you work this out?

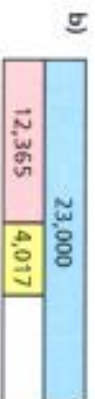
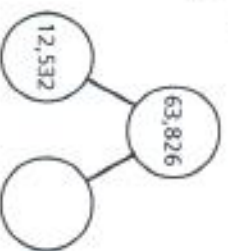
Is there another method you could use?



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- 8 Teddy and Jack are playing a computer game.  
Teddy scores 55,890 points.  
Jack scores 36,475 points fewer than Teddy.  
a) How many points does Jack score?  
b) How many points do they have altogether?

- 9 Here are some digit cards.



Ron makes a 4-digit number with the cards.  
Eva makes a 4-digit number with the cards.  
The difference between their numbers is between 1,000 and 3,000  
What numbers could Ron and Eva have made?



## Round to estimate and approximate

- 1 Rosie is working out  $2,937 + 1,870$

Rosie rounds each number to the nearest 1,000 to estimate the answer.

Complete the sentences.

2,937 rounded to the nearest 1,000 is

1,870 rounded to the nearest 1,000 is

Rosie's estimate for the answer is

$$\boxed{\phantom{000}} + \boxed{\phantom{000}} = \boxed{\phantom{000}}$$

Work out the actual answer.

- 2 Round each number to the nearest 10,000 to estimate the answer to the calculations.

a)  $12,063 + 29,580$

b)  $47,640 - 9,485$

- 3 Annie works out  $7,320 + 912$



Use approximations to show that Annie is incorrect.

- 4 Complete the calculations.

Use approximations to check your answers.

a)  $3,845 \text{ km} + 7,006 \text{ km}$

c)  $79,382 - 8,716$

b)  $873 + 9,618$

d)  $£12,005 + £3,978 - £6,172$

- 5 The table shows the number of people of different ages living in three towns.

	Town A	Town B	Town C
Under 16	3,765	8,283	10,301
16 to 65	35,835	14,100	24,554
Over 65	1,949	9,821	656

Estimate which town has got the greatest population.

- 6 Are these statements correct? How do you know?

a)  $29,999 - 9,999 = 30,000 - 10,000$

b)  $17,550 + 10,570 > 17,550 + 9,985$

c)  $17,990 + 75,980 - 17,990 = 12,975 + 75,980 - 12,975$

- 7 Mo has made a mistake with this calculation.

Use rounding and approximating to show how you know.

$$\begin{array}{r} 6 \text{ ' } 3 \text{ ' } 12 \\ - 1 \text{ ' } 4 \text{ ' } 12 \\ \hline 8 \text{ ' } 4 \text{ ' } 8 \text{ ' } 7 \\ - 1 \text{ ' } 8 \text{ ' } 9 \text{ ' } 4 \text{ ' } 5 \\ \hline \end{array}$$

- 8 Mr Khan writes this question on the board.

Dexter's estimate is  $7,000 - 1,000 = 6,000$

Whitney's estimate is  $7,400 - 700 = 6,700$

Whose estimate do you agree with?

Explain your answer.

Work out the actual answer.

Whose estimate was the closest?

Talk about it with a partner.

$$7,395 - 711$$

## Inverse operations (addition and subtraction)

- 1 Ron wants to check this addition calculation.

$$320 + 719 = 1,039$$

Which subtractions can be used to check Ron's addition?

$1,039 - 719$        $320 - 1,039$        $719 - 320$        $1,039 - 320$

- 2 Dora wants to check this subtraction calculation.

$$4,096 - 2,356 = 1,740$$

Which addition can be used to check Dora's subtraction?

$4,096 + 2,356$        $4,096 + 1,740$        $1,740 + 2,356$        $1,740 + 4,096$

- 3 Use an inverse operation to check these calculations.

a)

$$\begin{array}{r} 1360 \\ + 2973 \\ \hline 4333 \end{array}$$

b)

$$\begin{array}{r} 8264 \\ - 3142 \\ \hline 5122 \end{array}$$

- 4 Tommy works out  $12,350 + 7,903$  incorrectly.

$$\begin{array}{r} 12350 \\ + 7903 \\ \hline 91380 \end{array}$$

Tommy checks his calculation using the same addition.

Is this a good idea? Talk about it with a partner.

What calculation should he do? Correct Tommy's answer.



- 5 Match the inverse calculations.

$2,482 + 6,428 = 8,912$

$5,271 + 4,212 = 9,483$

$5,984 - 3,172 = 2,812$

$8,912 - 6,428 = 2,482$

$9,483 - 5,271 = 4,212$

$8,912 - 5,271 = 3,641$

$8,912 = 3,641 + 5,271$

$5,984 = 3,172 + 2,812$

- 6 Complete the calculations.

Use inverse operations to check your answers.

a)  $763 + 4,072$

b)  $8,711 - 1,053$

c)  $2,351 + 14,706$

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- 7 Alex thinks of a number.



When I add  
4,550 to my number  
I get 7,460

What number did Alex start with?

- 8 Here is a bar model.



Think of two different ways that you can find the missing part. What is the missing part?

## Multi-step addition and subtraction problems

- 1 Evo is reading a book before bedtime.

On Monday she reads 38 pages.

On Tuesday she reads 6 pages more than she did on Monday.

- a) How many pages does she read on Tuesday?  
 b) How many pages does she read altogether on Monday and Tuesday?

- c) There are 123 pages in the book altogether.

How many pages does Evo have left to read?

- 2 Here are two number cards.

800

?

The sum of the two cards is 2,900.

What is the difference between the two cards?

- 3 Mo has £1,000 to spend. He buys a TV and a games console.



Does Mo have enough money left to buy the phone?

Show your workings.

- 4 Two families each have £1,800

The table shows how much they need to spend.

	The Websters	The Changs
Housing	£465	£550
Food	£420	£380
Bills	£120	£135

Which family has the most money left?

How much more money do they have?

- 5 There are 15,600 people at a concert.

There are 9,050 adults.

The rest are children.

How many more adults than children are there?

- 6 Jack, Whitney and Amir are counting their sticker collections.



I have twice as many stickers as Whitney.

Jack



I have 100 stickers fewer than Whitney.

Amir

They have 900 stickers altogether.

How many stickers do they each have?



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- 7 Two numbers have a difference of 1,200 and a total of 6,484  
What are the two numbers?



- 8 Three 4-digit numbers add together to make 10,000

One of the numbers is 2,560

Complete the sentences to describe the other numbers.

The total of the two numbers must be

The two numbers could be  and

One of the numbers cannot be greater than

Write your own problem like this for a partner to solve.

