



# Maths

# Addition and Subtraction Y4

## Knowledge

- Efficient subtractions
- Checking strategies

## Skills

- Add and subtract 1s, 10s, 100s and 1000s
- Add two 4-digit numbers – no exchange
- Add two 4-digit numbers – one exchange
- Add two 4-digit numbers – more than one exchange
- Subtract two 4-digit numbers – no exchange
- Subtract two 4-digit numbers – one exchange
- Subtract two 4-digit numbers – more than one exchange
- Estimate answers

## Vocabulary

Add, total, plus, sum, more, altogether, difference, subtract, less, minus, take away, column addition, exchange, estimate, inverse operation, solve, number, column subtraction

## Estimate

To estimate the answer to calculations, we use near numbers. This can be either the nearest thousand, hundred or the nearest ten.

$$782 - 521 =$$

$$800 - 500 = 300$$

$$253 + 649 =$$

$$3736 - 2321 = 1415$$

Check using

$$1415 + 2321 = 3736$$

$$2321 + 1415 = 3736$$

$$3736 - 1415 = 2321$$

To check our answers, we can use the inverse operation.

$$4154 + 2625 = 6779$$

Check using

$$6779 - 2625 = 4154$$

$$6779 - 4154 = 2625$$

$$2625 + 4154 = 6779$$

## Checking answers

## Addition Methods

When adding numbers together, we always start with the ones column and move into the following columns.

Method 1 Single exchange	Method 2 Multiple exchanges
$\begin{array}{r} 5162 \\ +3497 \\ \hline 8659 \\ \underline{1} \end{array}$ <p>6 tens + 9 tens = 15 tens = 1 hundred and 5 tens. We carry the 1 hundred over to the next column.</p>	$\begin{array}{r} 5864 \\ +3497 \\ \hline 9361 \\ \underline{111} \end{array}$ <p>Exchange tens, hundreds and thousands. Don't forget to add the new ten, hundred or thousand.</p>

When subtracting numbers, we always start with the ones column and move into the following columns.

## Subtraction methods

Method 1 Single exchange	Method 2 Multiple exchanges
$\begin{array}{r} 61 \\ 5749 \\ -3471 \\ \hline 2278 \end{array}$ <p>You cannot subtract 7 tens from 4 tens so you have to exchange one hundred to make 14 tens.</p>	$\begin{array}{r} 6131 \\ 5742 \\ -3476 \\ \hline 2266 \end{array}$ <p>Exchange tens, hundreds and thousands.</p>

## Inspirational Mathematician

### Thomas Fuller (1710-1790)

Fuller was born between present-day Liberia and Benin. He was one of the millions of Black Africans who were kidnapped to America as a slave at the age of 11 and was a prodigy. Though he could never read or write, he could multiply seven into itself, that is, product by seven, and the products by seven, for seven times. He could give the number of months, days, weeks, hours, minutes, and seconds in any period of time, allowing in his calculation for all leap years that happened in the question. He would give the number of poles, yards, feet, inches, and barleycorns in any distance e.g. in the earth's orbit; and in every calculation he would produce the true answer in less time than ninety-nine men out of a hundred would calculate on paper.

