



## Addition and subtraction

CAPS: Grade 6, Term 3

**Numbers, Operations and Relationships**

Whole numbers: Addition and subtraction

### Note

#### Remember:

The vertical addition and subtraction are the most efficient method to calculate large numbers. You could use other ways but they would take a long time. Look at the methods used for an addition and subtraction sum below and see if you can understand and do the same.

$$\begin{array}{r}
 \begin{array}{r}
 5^1 \ 6^1 \ 7^1 \\
 + \quad 2 \ 4 \ 5 \\
 \hline
 8 \ 1 \ 3
 \end{array}
 \quad
 \begin{array}{r}
 4^1 \ 5^1 \ 6^1 \\
 + \quad 6 \ 9 \ 9 \\
 \hline
 1 \ 5 \ 5
 \end{array}
 \end{array}$$

$$\begin{array}{r}
 \begin{array}{r}
 5 \ 6 \ 7_6 \\
 - \quad 2 \ 4 \ 5 \\
 \hline
 3 \ 2 \ 1
 \end{array}
 \quad
 \begin{array}{r}
 4_3 \ 5_4 \ 6_1 \\
 - \quad 6 \ 9 \ 9 \\
 \hline
 7 \ 5 \ 7
 \end{array}
 \end{array}$$

#### Tips for doing vertical addition or subtraction

1. Make sure the correct place values e.g. hundreds, tens, units are added or subtracted together.
2. Work neatly.
3. Do not squash your calculations into a small space on your page.

### Activity 1

Calculate using the vertical column method as shown above.

(a)  $345\,891 + 234\,567$

(b)  $345\,891 + 234\,567$



c  $908\,732 + 104\,782$

d  $1\,890\,340 + 2\,356\,190$

e  $5\,678\,934 + 724$

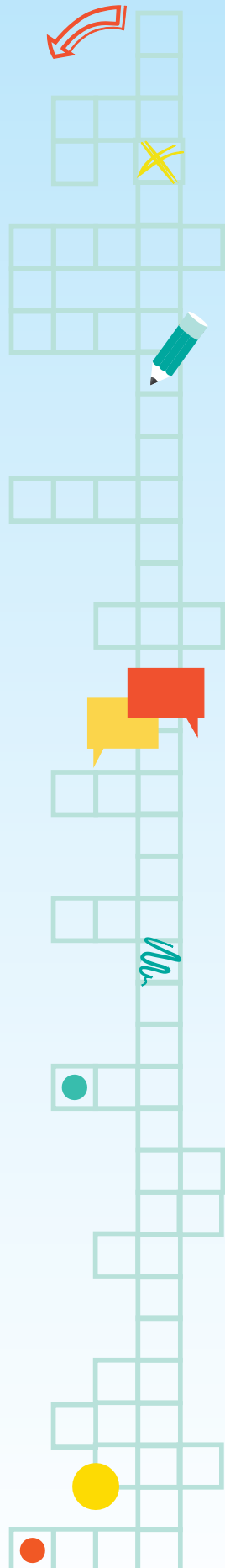
f  $345\,988 - 219\,782$

g  $2\,134\,589 - 1\,000\,909$

h  $1\,091\,982 - 89\,901$

i  $1\,987\,545 - 392$

j  $6\,989\,045 - 3\,456\,999$





## Activity 2

### Note

#### Remember:

Use rounding-off to first estimate the answers to the sums below. This should help you know in what range your answer should be. Then use a calculator to calculate the actual answers, checking the actual answer with your estimation.

E.g:  $367\,897 + 134\,589 \approx 400\,000 + 100\,000 = 500\,000$

The actual answer is 502 486 which is close to the estimation.

i  $689\,712 + 102\,456$

ii  $898\,901 + 391\,200$

iii  $934\,786 + 1\,908\,123$

iv  $345\,231 - 132\,909$

v  $100\,302 - 88\,412$

vi  $465\,999 - 23\,010$

### Teacher Tip

If children struggle to grasp the vertical column method, you should revise decomposition (breaking up) methods with them so that they understand what they are doing using this method.

