

Missing numbers

- Add and subtract whole numbers and decimals using the formal written methods of columnar addition and subtraction
- Estimate and check the answer to a calculation



challenge 1 Find the missing numbers in these calculations.

a	b	c
$\begin{array}{r} 487\ 273 \\ + \quad \quad \quad \\ \hline 829\ 570 \end{array}$	$\begin{array}{r} 328\ 446 \\ + \quad \quad \quad \\ \hline 515\ 228 \end{array}$	$\begin{array}{r} 732\ 237 \\ + \quad \quad \quad \\ \hline 916\ 829 \end{array}$
d	e	f
$\begin{array}{r} 236\ 472 \\ + \quad \quad \quad \\ \hline 851\ 543 \end{array}$	$\begin{array}{r} 825\ 656 \\ + \quad \quad \quad \\ \hline 1\ 556\ 983 \end{array}$	$\begin{array}{r} 543\ 864 \\ - \quad \quad \quad \\ \hline 328\ 547 \end{array}$
g	h	i
$\begin{array}{r} 473\ 965 \\ - \quad \quad \quad \\ \hline 256\ 462 \end{array}$	$\begin{array}{r} 726\ 834 \\ - \quad \quad \quad \\ \hline 408\ 519 \end{array}$	$\begin{array}{r} 943\ 829 \\ - \quad \quad \quad \\ \hline 429\ 316 \end{array}$



2 Explain how you worked out the missing numbers in Question 1.

challenge 2 1 Use rounding to estimate the missing numbers in each calculation. Then find the missing numbers.

a	b	c
$\begin{array}{r} 5\ 683\ 145 \\ + \quad \quad \quad \\ \hline 7\ 995\ 927 \end{array}$	$\begin{array}{r} 4\ 293\ 562 \\ + \quad \quad \quad \\ \hline 6\ 836\ 296 \end{array}$	$\begin{array}{r} \quad \quad \quad \\ + 4\ 382\ 175 \\ \hline 9\ 547\ 969 \end{array}$
d	e	f
$\begin{array}{r} \quad \quad \quad \\ + 7\ 372\ 145 \\ \hline 10\ 853\ 817 \end{array}$	$\begin{array}{r} 5\ 287\ 931 \\ - \quad \quad \quad \\ \hline 2\ 636\ 461 \end{array}$	$\begin{array}{r} 7\ 862\ 975 \\ - \quad \quad \quad \\ \hline 4\ 447\ 492 \end{array}$
g	h	i
$\begin{array}{r} 8\ 428\ 715 \\ - \quad \quad \quad \\ \hline 2\ 709\ 084 \end{array}$	$\begin{array}{r} \quad \quad \quad \\ - 2\ 653\ 425 \\ \hline 3\ 719\ 226 \end{array}$	$\begin{array}{r} \quad \quad \quad \\ - 2\ 315\ 463 \\ \hline 6\ 112\ 192 \end{array}$

2 Find the missing decimal numbers in these calculations.

a	b	c
$\begin{array}{r} 56\ 781.23 \\ + \quad \quad \quad \\ \hline 83\ 938.16 \end{array}$	$\begin{array}{r} 48\ 765.41 \\ + \quad \quad \quad \\ \hline 84\ 677.80 \end{array}$	$\begin{array}{r} \quad \quad \quad \\ + 59\ 232.81 \\ \hline 91\ 389.03 \end{array}$
d	e	f
$\begin{array}{r} 87\ 241.34 \\ - \quad \quad \quad \\ \hline 61\ 630.82 \end{array}$	$\begin{array}{r} 94\ 781.59 \\ - \quad \quad \quad \\ \hline 41\ 328.38 \end{array}$	$\begin{array}{r} \quad \quad \quad \\ - 44\ 256.82 \\ \hline 31\ 272.94 \end{array}$

challenge 3 1 Find three different answers for each calculation.

a	b	c
$\begin{array}{r} 6\ 2\ 1\ 7\ 8\ 5\ 9 \\ + \quad \quad \quad \\ \hline 9\quad\quad\quad 3\quad\quad\quad 4 \end{array}$	$\begin{array}{r} 4\ 0\ 8\ 7\ 2\ 9\ 4 \\ + \quad \quad \quad \\ \hline 6\quad\quad\quad 2\quad\quad\quad 1 \end{array}$	$\begin{array}{r} 5\ 4\ 8\ 6\ 7\ 2\ 1 \\ + \quad \quad \quad \\ \hline 9\quad\quad\quad 6\quad\quad\quad 9 \end{array}$
d	e	f
$\begin{array}{r} 8\ 4\ 3\ 1\ 5\ 7\ 6 \\ - \quad \quad \quad \\ \hline 3\quad\quad\quad 2\quad\quad\quad 7 \end{array}$	$\begin{array}{r} 5\ 2\ 9\ 4\ 7\ 6\ 0 \\ - \quad \quad \quad \\ \hline 1\ 3\quad\quad\quad 5 \end{array}$	$\begin{array}{r} 6\ 7\ 8\ 1\ 4\ 2\ 5 \\ - \quad \quad \quad \\ \hline 4\quad\quad\quad 3\quad\quad\quad 6 \end{array}$

2 Check your answers to Question 1 with a partner. Do you have any of the same missing digits?



3 Work out where the missing puzzle pieces go in this addition calculation. Some pieces have been put in for you.

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