

Addition and Subtraction

1) Evaluate (using column method)

- a) $1097 + 672$ b) $12018 - 6935$ c) $23.4 + 6.97$
d) $1.02 - 0.972$ e) $12.09 + 203.105$

2) Work out these using mental methods

- a) $12 - 7 + 8 - 3 + 9$ b) $95 - 19$ c) $706 + 95$
d) $701 - 35$ e) $42.5 + 8.5$ f) $7000 - 135$
g) $20.3 - 1.7 + 2.4$ h) $1 + 2 + 3 + 4 - 1 - 2 - 3 - 4$

3) Write = or \neq between the following pairs of calculations

- a) $1.7 + 3$ $3 + 1.7$ b) $3 - 1.7$ $1.7 - 3$
c) $23 + 52$ $25 + 32$ d) $108 - 97$ $109 - 98$
e) $216 + 57$ $217 + 58$ f) $89 + 93$ $90 + 92$

4) Using all the digits from 1 to 6 in the boxes below

$$\square\square\square + \square\square + \square$$

How can you make the following sums?

- a) 183 b) 219 c) 309 d) 345
e) 408 f) 516 g) 579 h) 678

What is the smallest result that is possible to make?

5) You have six cards with the digits 2, 2, 3, 4, 5, 6 printed on them.

You must use all of them and can use up to two decimal points

- a) Which two numbers have a sum closest to 3800?
b) Which two numbers have the smallest difference?

6) Work out the missing digits in these calculations, the lead digit in each number is never a zero (missing B p61)

a)

$$\begin{array}{r} 2 \square \\ \square 4 \\ + 8 4 \\ \hline 2 \square 2 \end{array}$$

b)

$$\begin{array}{r} 9 \square \\ \square 4 \\ + 9 3 \\ \hline 1 \square 9 \end{array}$$

c)

$$\begin{array}{r} 6 \square 7 \\ \square 6 8 \\ + 3 9 \square \\ \hline 2 \square 1 1 \end{array}$$

d)

$$\begin{array}{r} 2 \square 7 \\ \square 1 5 \\ + \square 4 \square \\ \hline 2 \square 8 1 \end{array}$$

e)

$$\begin{array}{r} \square 3 \square \\ - 3 \square 6 \\ \hline 1 3 5 \end{array}$$

f)

$$\begin{array}{r} \square \square 4 \\ - 7 4 \square \\ \hline 7 5 \end{array}$$

7) These sums are clearly wrong. Every digit is wrong by exactly one in the question and the answer. So a digit of a 6 must be either a 5 or a 7. Can you fix them?

a)

$$\begin{array}{r} 4 3 \\ + 5 7 \\ \hline 2 0 7 \end{array}$$

b)

$$\begin{array}{r} 7 6 6 8 \\ + 2 6 9 2 \\ \hline 9 0 2 7 \end{array}$$

8) In a word sum, each letter stands for a digit. Two letters that are the same must stand for the same digit. Two letters that are different must stand for different digits. No leading digit can be a zero. How many solutions are there to this word sum?

$$\begin{array}{r} A D D \\ A D D \\ + O H \\ \hline D E A R \end{array}$$

Answers

- 1a) 1769 b) 5083 c) 30.37 d) 0.048 e) 215.195 2a) 19 b) 76 c) 801 d) 666
 e) 51 f) 6965 g) 21 h) 0 3a) = b) ≠ c) ≠ d) = e) ≠ f) = 4) we will check
 5a) 3652 and 42 b) 2.53 and 2.46