

Use formal methods for subtraction of decimals

1 Complete the calculations.

a)
$$\begin{array}{r} 5.8 \\ - 3.1 \\ \hline 2.7 \end{array}$$

b)
$$\begin{array}{r} 5.8 \\ - 3.8 \\ \hline 2.0 \end{array}$$

c)
$$\begin{array}{r} 8.06 \\ - 2.71 \\ \hline 5.35 \end{array}$$

2 Which column subtractions could you use to work out $8 - 2.7$? Tick your answers.

$$\begin{array}{r} 8 \\ - 2.7 \\ \hline \end{array}$$

$$\begin{array}{r} 8.0 \\ - 2.7 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 2.7 \\ \hline \end{array}$$

Discuss your answers with a partner.

3 Huan has worked out $3.54 - 2.71$ incorrectly.

a) What mistake has he made?

He has found the difference between the numbers in each column.

$$\begin{array}{r} 3.54 \\ - 2.71 \\ \hline 1.23 \end{array}$$

b) Use the grid to find the correct answer.

$$\begin{array}{r} 3.54 \\ - 2.71 \\ \hline 0.83 \end{array}$$

4 Work out the calculations using the column method.

a) $38.6 - 11.3$

$$\begin{array}{r} 38.6 \\ - 11.3 \\ \hline 27.3 \end{array}$$

c) $38.6 - 9.7$

$$\begin{array}{r} 38.6 \\ - 9.7 \\ \hline 28.9 \end{array}$$

e) $37 - 14.8$

$$\begin{array}{r} 37.0 \\ - 14.8 \\ \hline 22.2 \end{array}$$

b) $38.6 - 14.8$

$$\begin{array}{r} 38.6 \\ - 14.8 \\ \hline 23.8 \end{array}$$

d) $23.66 - 12.73$

$$\begin{array}{r} 23.66 \\ - 12.73 \\ \hline 10.93 \end{array}$$

f) $27.3 - 5.69$

$$\begin{array}{r} 27.30 \\ - 5.69 \\ \hline 21.61 \end{array}$$

5 Kim buys a magazine for £2.89. She pays with a £10 note. How much change should she receive?

Kim should receive $\boxed{£7.11}$ change.

6 Work out the values of the expressions.

$w = 3.4$

$x = 5.84$

$y = 27$

$z = 4.08$

a) $x - w = \boxed{2.44}$

c) $y - w = \boxed{23.6}$

e) $z - w = \boxed{0.68}$

b) $x - z = \boxed{1.76}$

d) $y - x = \boxed{21.14}$

f) $y + x - w = \boxed{29.44}$

7 Complete the subtractions.

a) $1.67 - \frac{3}{10} = 1.37$

d) $1.67 - \frac{3}{4} = 0.92$

b) $1.67 - \frac{79}{100} = 0.88$

e) $1\frac{1}{2} - 0.43 = 1.07$

c) $1.67 - \frac{1}{4} = 1.42$

f) $1\frac{3}{4} - 0.81 = 0.94$

8 Solve the equations.

a) $a + 1.7 = 54$

d) $5 = d + 3.15$

$a = 52.3$

$d = 1.85$

b) $5.4 = b - 1.7$

e) $5.9 = e - 3.05$

$b = 7.1$

$e = 8.95$

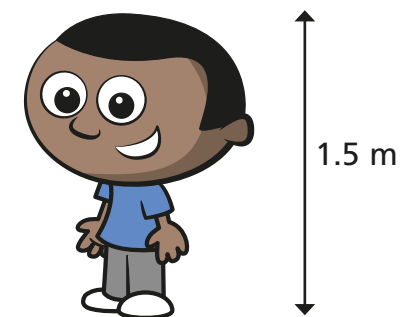
c) $c + 2.58 = 7.6$

f) $f + 1.65 = 2.78 + 3.51$

$c = 5.02$

$f = 4.64$

9 Mo is 1.5 m tall.



Alex is 14 cm shorter than Mo.

Tom is 14 cm taller than Mo.

Aisha is 27 cm shorter than Alex.

a) Work out the heights of the other students.
Give your answers in metres.

Alex's height = 1.36m

Tom's height = 1.64m

Aisha's height = 1.09m

b) Work out the range of all four heights.

range 0.55m