

4 Rules (Decimals) (non-calculator)

Starter

1. **(Review of Y7 material)** Without a calculator find the value of:

(a) $15.89 + 7.4$ (b) $62.4 - 16.83$

Working: Make sure the decimal points are above each other.

$$\begin{array}{r} 15.89 \\ +7.4 \\ \hline 23.29 \end{array}$$

(b) Put a zero to the right of the 4

$$\begin{array}{r} 62.40 \\ -16.83 \\ \hline 45.57 \end{array}$$

2. **(Review of Y7 material)** Without a calculator find the value of:

(a) 16.4×5.7 (b) 4.60×3.8 (c) $7.95 \div 0.6$

N.B. If you've forgotten how to multiple decimals, click [here](#).

N.B. If you've forgotten how to divide by a decimal, click [here](#).

Working: (a) To start with ignore the decimal points and do long multiplication

$$\begin{array}{r} 164 \\ \times 57 \\ \hline 1148 \\ +820 \\ \hline 9348 \end{array}$$

In the question there are 2 digits after the decimal point so the answer will have the same. The answer is 93.48

(b) The zero after the 6 in 4.60 is not needed so remove it.

$$\begin{array}{r} 46 \\ \times 38 \\ \hline 368 \\ +138 \\ \hline 1748 \end{array}$$

The answer is 17.48

(c) Since the divisor (0.6) is a decimal, multiply it by 10 to make it an integer (a whole number).

If we multiply 0.6 by 10 we also need to multiply 7.95 by 10.

So $7.95 \div 0.6 \equiv 79.5 \div 6$

$$\begin{array}{r} 13.25 \\ 6 \overline{)79.5} \\ \underline{6} \\ 19 \\ \underline{18} \\ 15 \\ \underline{12} \\ 30 \\ \underline{30} \\ 0 \end{array}$$

The answer is 13.25

N.B. The symbol \equiv means "equivalent to" or "is the same as".

The abbreviation N.B. is short for "nota bene" which is Latin for "note well".

E.g. 1 (a) $64.8 \div 0.4$

(b) 8.67×4.9

(c) $10.395 \div 4.5$

Working:

(a) $64.8 \div 0.4 \equiv 648 \div 4$

$$\begin{array}{r} 162 \\ 4 \overline{)648} \\ \underline{4} \\ 24 \\ \underline{24} \\ 08 \\ \underline{8} \\ 0 \end{array}$$

Answer is 162

(b)
$$\begin{array}{r} 867 \\ \times 49 \\ \hline 7803 \\ +3468 \\ \hline 42483 \end{array}$$
 Answer is 42.483

(c) $10.395 \div 4.5 \equiv 103.95 \div 45$

$$\begin{array}{r} 2.31 \\ 45 \overline{)103.95} \\ \underline{90} \\ 139 \\ \underline{135} \\ 45 \\ \underline{45} \\ 0 \end{array}$$

Answer is 2.31

Video: [Multiplying decimals](#)
Video: [Dividing by a decimal](#)

[Solutions to Starter and E.g.s](#)

Exercise

p65 Ex 4.2 Qu 1ace, 2ace, 5, 6ace, 7ace, 8

[Textbook answers \(only available during a lockdown\)](#)