

19-22 Operations with decimals

19. Adding decimal numbers

Make certain you are adding like parts of numbers!

$$\begin{array}{r} 46.2 \\ + .086 \\ \hline 46.286 \end{array}$$

addend addend = sum

← group!

$$\begin{array}{r} 111 \\ 25.46 \\ + 88.74 \\ \hline 114.20 \end{array}$$

20. Subtracting decimal numbers!

Again, ensure you are subtracting like parts.
You may need to ungroup parts of your number.

minuend

$$24.6 - .07$$

Subtrahend =

difference

$$\begin{array}{r} 24.\overset{5}{\cancel{6}}\overset{10}{0} \\ - .07 \\ \hline 24.53 \end{array}$$

21. Multiplying decimals

If your products are made of multiple parts or pieces, you must multiply ALL parts of the numbers.

$$\begin{array}{c} \text{Factor} \\ 21.4 \end{array} \times \begin{array}{c} \text{Factor} \\ 3.7 \end{array} = \text{product}$$

	20	1	.4
3	$3 \times 20 =$ $3 \times 2 \times 10 =$ $6 \times 10 = \mathbf{60}$	$3 \times 1 = \mathbf{3}$	$3 \times .4 =$ $3 \times 4 \times 1/10 =$ $12 \times 1/10 =$ $12/10 =$ $\mathbf{1.2}$
.7	$.7 \times 20 =$ $7 \times 1/10 \times 2 \times 10 =$ $7 \times 2 \times 1/10 \times 10 =$ $14 \times 10/10 =$ $\mathbf{14}$	$.7 \times 1 = \mathbf{.7}$	$.7 \times .4 =$ $7 \times 1/10 \times 4 \times 1/10 =$ $7 \times 4 \times 1/10 \times 1/10 =$ $28 \times 1/100 =$ $\mathbf{.28}$

Dividing decimals

We divide each piece of a number one part at a time. We then ungroup leftover numbers that don't divide evenly into smaller parts, and divide those.

Dividend

$$64.9 \div 4 =$$

divisor

$$\begin{array}{r} 16.225 \\ 4 \overline{) 64.900} \\ \underline{4} \\ 24 \\ \underline{24} \\ 09 \\ \underline{8} \\ 10 \\ \underline{8} \\ 20 \\ \underline{20} \\ 00 \end{array}$$

Quotient