



## Decimals

### ADDITION OF DECIMALS

1) Line up the decimal points of the numbers to be added.

2) Add the numbers. Keep the decimal points in the answer in the same place.

$$\begin{array}{r} \text{Example:} \quad 255.55 \\ \quad \quad \quad 91.555 \\ + 4221.6 \\ \hline 4359.405 \end{array}$$

### SUBTRACTION OF DECIMALS

1) Line up the decimal points of the numbers to be subtracted.

2) Add zeroes at the end of the first number if it doesn't have enough decimal places.

3) Subtract the numbers. Keep the decimal in the answer at the same location.

$$\begin{array}{r} \text{Example:} \quad 3673.9000 \\ \quad \quad \quad - 853.6834 \\ \hline 2420.2166 \end{array}$$

### MULTIPLICATION OF DECIMALS

1) Line up the numbers so their last digits are in the same column.

2) Multiply as with whole numbers.

3) The number of decimal places in the answer is the same as the number of decimal places in the question.

$$\begin{array}{r} \text{Example: } 2.33 \quad 2 \text{ decimal places} \\ \quad \quad \times 1.3 \quad 1 \text{ decimal place} \\ \hline 699 \\ 233 \\ \hline 3029 \end{array}$$

Answer has 3 decimal places: 3.029

### DIVISION OF DECIMALS

1) Make the divisor (the number you divide by) into a whole number by moving the decimal point.

2) Move the decimal point in the dividend (the number you divide into) the same number of places in the same direction.

3) Divide as normal. The decimal point in the answer is above the decimal point in the new dividend.

4) If the division does not come out even, add a zero at the end of the dividend and keep going until you have enough decimal places.

$$\text{Example: } 51.59 \div 13.4 = ?$$

Move the decimal place in the divisor one place to the right to make 134.

Move the decimal place in the dividend one place to the right to make

$$\begin{array}{r} \begin{array}{c} \leftarrow \text{Divisor} \\ \leftarrow \text{Dividend} \end{array} \quad 134 \overline{) 515.90} \\ \underline{402} \phantom{0} \\ 1139 \phantom{0} \\ \underline{1072} \phantom{0} \\ 670 \\ \underline{670} \\ 0 \end{array}$$

515.9.

5) If the answer needs to be rounded to a certain number of decimal places, divide until you have one place too many, and round to that number.