

Decimal Operations

Adding and Subtracting Decimals

Example : $235.7 + 18.276$

1) Write digits with the same position under each other and line up the decimal point.

$$\begin{array}{r} 235.7 \\ + 18.276 \\ \hline \end{array}$$

2) Add or (subtract) the numbers **ignoring** the decimal point.

$$\begin{array}{r} 235.7 \\ + 18.276 \\ \hline \end{array}$$

3) Place the decimal point directly under the decimal of the other numbers.

$$\begin{array}{r} 235.7 \\ + 18.276 \\ \hline 253.976 \end{array}$$

Multiplying Decimals

Multiplying by Powers of 10

When multiplying a decimal number by 10,100,1000, etc.:

Move the decimal point to the **RIGHT** one place for every zero.

Example: 3.45×100

$$3.45 \quad = 345.00$$

Name: _____

Date: _____

When multiplying by a decimal number by 0.1, 0.01, 0.001, 0.0001, etc.:

Move the decimal point to the **LEFT**, by as many decimal places there are in the power.

Example: 3.45×0.001

$$3.45 \qquad = 0.00345$$

Multiplication of Decimal Numbers

1) Multiply them as if they were not decimal numbers.

$$\begin{array}{r} 35.18 \\ \times 4.7 \\ \hline \end{array}$$

2) Count the number of decimal places in the 2 numbers
we have 3.

3) Put the decimal place in the result so it is same as the total of the 2 numbers.

Dividing Decimals

Dividing by Powers of 10

When dividing a decimal number by 10,100,1000, etc.:

Move the decimal point to the **LEFT** one place for every zero.

Example: $3.45 \div 100$

$$3.45 \qquad =$$

When dividing by a decimal number by 0.1, 0.01, 0.001, 0.0001, etc.:

Move the decimal point to the **RIGHT** by as many decimal places there are in the power.

Example: $3.45 \div 0.001$

$$3.45 \qquad =$$