

Decimal Rules!

Place Values:

0. Tenths Hundredths Thousandths

Terminating Decimals:

A terminating decimal has a finite number of decimal points.

Example: 4.5, 7.123

Repeating Decimals:

A repeating decimal repeats one or more digits infinitely.

Example: $34.\overline{2}$, $1.\overline{23}$

Adding and Subtracting Decimals:

When adding and subtracting decimals you need to line up the decimals in order to add the correct place values together.

Estimate your answer to be sure your decimal is in the right place.

Example: $3 + 5.2 \rightarrow 3.0$

+ 5.2

8.2

Estimate: $3 + 5 = 8$

Multiplying Decimals:

When multiplying decimals it is not necessary to line up the place values. Multiply normally. The number of decimal places in the factors will be the same number of decimal places in the product. Estimate your answer to be sure your decimal is in the right place.

Example: $4.21 \times 2.7 \rightarrow 4.21$

$\times 2.7$

11.367

Estimate: $4 \times 3 = 12$

Dividing Decimals:

When the divisor is a decimal, you must move the decimal place over to the right until it becomes a whole number. However many place values you moved in the divisor you must also move in the dividend before you begin dividing.

Example: $15.12 \div 4.2 \rightarrow 4.2 \overline{)15.12} \rightarrow 42 \overline{)151.2}$