Basic Algebra
Signed Numbers

1. Change all Mixed Numbers to Improper Fractions.
2. Do things in Order of Operations - Parentheses, Exponents, Multiplies and Divides and, lastly, Adds and Subtracts.
3. Find the Lowest Common Denominator (LCD).
4. Convert all fractions to Equivalent Fractions – with the same LCD.
5. Add and/or Subtract.
6. Simplify.

Symbols

+	Add, And, Plus, Increase, More, Sum
-	Minus, Subtract, Less, Take away, Difference, Decrease, Discount
*	Times, Multiply, Of, Double, Triple, x, •, Product,
÷	Divide, Quotient, /, Goes into, Divided by,
=	Equals, Is, Total

Tax & Commission

Cost x Tax Rate = Tax (Add)

Cost x Commission Rate = Commission (Subtract)

Basic Algebra

Signed Numbers

Change

Starting Value + Change = Ending Value

$$\% \text{ Change} = \frac{\text{Change}}{\text{Starting Value}} * 100$$

Signs

Multiply or Divide: (+ and +) or (- and -) is always "+" (plus)
(+ and -) or (- and +) is always "-" (negative)

Add/Subtract: "+(+" or "-(-" is always "+" (plus)
"+(-" or "-(+" is always "-" (negative)

Fraction Equivalents

$\frac{1}{10}$ =0.10000	$\frac{1}{8}$ = 0.12500	$\frac{1}{6}$ = 0.16667	$\frac{1}{5}$ = 0.20000
$\frac{1}{4}$ = 0.25000	$\frac{1}{3}$ = 0.33333	$\frac{1}{2}$ = 0.50000	$\frac{2}{3}$ = 0.66667
$\frac{5}{6}$ = 0.83333	$\frac{3}{8}$ = 0.37500	$\frac{5}{8}$ = 0.62500	$\frac{7}{8}$ = 0.87500

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Units

Size	Prefix	Weight	Length	Volume	Size
$\frac{1}{1000}$	Milli	Milligram	Millimeter	Milliliter	Small
$\frac{1}{100}$	Centi	Centigram	Centimeter	Centiliter	
$\frac{1}{10}$	Deci	Decigram	Decimeter	Deciliter	
1	----	Gram	Meter	Liter	Regular
10	Deca	Decagram	Decameter	Decaliter	
100	Hecto	Hectogram	Hectometer	Hectoliter	
1000	Kilo	Kilogram	Kilometer	Kiloliter	Large

Adding Signed Numbers

Absolute Value "| |" : Just use the number without the sign.

Same Signs: Use that sign, and then add the absolute value of the two numbers.

Different Signs: Use the sign of the number with the largest absolute value, and subtract the smallest absolute value from the largest absolute value.

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