

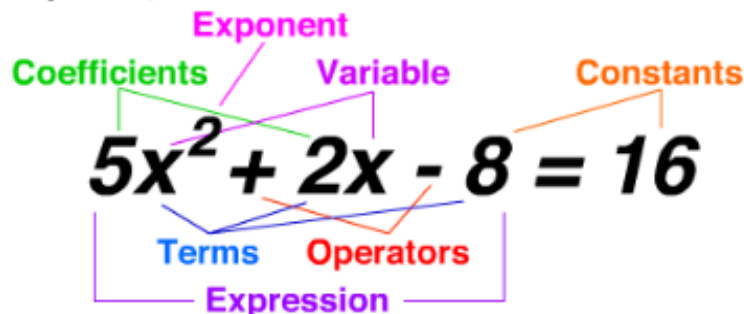
## algebra

- elementary algebra is an area of mathematics where numbers and quantities called variables are represented by letters and symbols in expressions and equations.

EXAMPLE:

### algebra ... equation

An equation is a mathematical statement containing an equals sign. One number is represented by an unknown variable. To solve an equation, the value of this variable must be found.



### parts of an equation

- Variable** • varying quantity represented by a letter or symbol, e.g.  $x$
- Constant** • a fixed quantity that does not vary, e.g. a number
- Coefficient** • a number which multiplies a variable, e.g.  $5x$
- Exponent** • shows the number of times a variable or number is multiplied by itself, e.g.  $y^4 = y \times y \times y \times y$
- Operator** • a symbol indicating what operation must be done, e.g.  $+$   $-$   $\times$   $\div$
- Term** • one part of an expression which may be a number, a variable or a product of both, e.g.  $5x^2$   $4xy$   $12$
- Expression** • one or a group of terms. May include variables, constants, operators and grouping symbols e.g.  $5x^2 + 2x(x + 2) - 8 = 16$