



**Take a look at a LiveMath notebook.
Don't do anything.....Just look.**



This lesson will cover the basics on manipulating algebraic expressions and other functionality available.

Take a look at some algebraic investigations.

$2x + 3y - x - y + 2y + 2y - x + 2x$

$\triangle 2x + 3y - x - y + 2y + 2y - x + 2x = 2x + 6y$ Simplify

$(x + y)^3$

$\triangle (x + y)^3 = x^3 + y^3 + 3xy^2 + 3x^2y$ Expand

$x^2 - x - 6$

$\triangle x^2 - x - 6 = (x - 3)(x + 2)$ Factor

e^{a+b}

$\triangle e^{a+b} = e^a e^b$ Collect

$3x + 1 = 4x - 3$

$\triangle -x + 1 = -3$ Move Over

$\triangle -x = -4$ Move Over

$\triangle x = 4$ Isolate



$a = 3$

$b = 4$

$a + b$

$\triangle a + b = 7$ Calculate

$\begin{pmatrix} 1 & 2 \\ 8 & b \end{pmatrix} + \begin{pmatrix} a & -1 \\ 0 & 3 \end{pmatrix}$

$\triangle \begin{pmatrix} 1 & 2 \\ 8 & b \end{pmatrix} + \begin{pmatrix} a & -1 \\ 0 & 3 \end{pmatrix} = \begin{pmatrix} a+1 & 1 \\ 8 & b+3 \end{pmatrix}$ Expand