

010001100

1729

4.56 4.56 4 5 4 5 4.56 4.56  $\pi$  &ExponentialE; &ee; &ImaginaryI; &ii;  $y^\infty$

227  $\pi$

$a_{11} a_{12} \dots a_{1n} a_{21} a_{22} \dots a_{2n} \dots a_{m1} a_{m2} \dots a_{mn} x_1 x_2 \dots x_n = b_1 b_2 \dots b_n$

$f(x) = \sum_{j=0}^{\infty} a_j x^j$

$x^2 - 9 = (x - 3)(x + 3)$

$x^2 - 9 = (x - 3)^2$

$ax^2 + bx + c = 0$   $ax^2 + bx = -c$   $x^2 + \frac{b}{a}x = -\frac{c}{a}$  Divide out leading coefficient.  $x^2 + \frac{b}{a}x + \frac{b^2}{4a^2} = -\frac{c}{a} + \frac{b^2}{4a^2}$  Complete the square.  $(x + \frac{b}{2a})^2 = \frac{b^2 - 4ac}{4a^2}$  Discriminant revealed.  $(x + \frac{b}{2a})^2 = \frac{b^2 - 4ac}{4a^2}$   $x + \frac{b}{2a} = \pm \sqrt{\frac{b^2 - 4ac}{4a^2}}$  There's the vertex formula.  $x = -\frac{b}{2a} \pm \sqrt{\frac{b^2 - 4ac}{4a^2}}$