

010001100

1729

4.56 4.56 4 5 4 5 4.56 4.56  $\pi e e i i \gamma \infty$

227  $\pi$

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

$f(x) = \sum_{j=0}^{\infty} f_j \frac{x^j}{j!}$

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

$x^2 - 9 = x^2 - \boxed{3}^2$

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