

010001100

1729

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

22 7  $\pi$

$a_1 a_1 a_2 \dots a_1 a_n a_2 a_2 \dots a_2 a_n : a_m a_1 a_m a_2 \dots a_m a_n x_1 x_2 : x_n = b_1 b_2 : b_n$

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

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

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

$ax^2 + bx + c = 0$   $ax^2 + bx = -c$   $x^2 + \frac{b}{a}x = -\frac{c}{a}$  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.  $x = -\frac{b}{2a} \pm \sqrt{\frac{b^2 - 4ac}{4a^2}}$