When \(a \ne 0\), there are two solutions to \(ax^2 + bx + c = 0\) and they are $$x = {-b \pm \sqrt{b^2-4ac} \over 2a}.$$

a x 2 + b x + c = 0 a x 2 + b x = - c x 2 + b a x = - c a Divide out leading coefficient. x 2 + b a x + b 2 a 2 = - c (4 a) a (4 a) + b 2 4 a 2 Complete the square. (x + b 2 a) (x + b 2 a) = b 2 - 4 a c 4 a 2 Discrimin revealed. (x + b 2 a) 2 = b 2 - 4 a c 4 a 2 x + b 2 a = b 2 - 4 a c 4 a 2 x = - b 2 a ± { C } b 2 - 4 a c 4 a 2 There's the vertex formula. x = - b ± { C } b 2 - 4 a c 2 a

0 1 0 0 0 1 1 0 0 4.56 4.56 4 5 4 5 4.56 4.56 π ℯ ℯ ⅈ ⅈ γ ∞ 17 29

$$\int 0 1 dx (a + 1) x = \pi$$

$$\int E (\alpha f + \beta g) d \mu = \alpha \int E f d \mu + \beta \int E g d \mu$$

$$A = (9 8 6 1 2 7 4 9 2 6 0 5) \text{ or } A = [9 8 6 1 2 7 4 9 2 6 0 5]$$

$$[a 11 − \lambda ⋯ a 1n ⋮ ⋱ ⋮ a n1 ⋯ a nn − \lambda] [x 1 ⋮ x n] = 0$$

$$x − 3 + 3 x + 3 x x − 3 + i y 2 (r + x)$$

$$\sum n = 0 t f (2 n) + \sum n = 0 t f (2 n + 1) = \sum n = 0 2 t + 1 f (n)$$

$$x 2 = | x | = { +x , if x > 0 0 , if x = 0 −x , if x < 0$$

$$H (j \omega) = { x − j \omega \sigma 0 for | \omega | < \omega \sigma 0 for | \omega | \omega \sigma$$

$$x = - b \pm b 2 - 4 \ a \ c 2 \ a \qquad f ' (a) = \lim h \to 0 f (a + h) - f (a) h$$

$$1 + \sum k = 1 \infty q k + k 2 (1 - q) (1 - q 2) \ldots (1 - q k) = \prod j = 0 \infty 1 (1 - q 5 j + 2) (1 - q 5 j + 3) , \text{for } \ | q | < 1$$