

EGCI491 Computer Engineering Seminar

L^AT_EX Assignment II

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1 Mathematical Equations

A quadratic equation is a second degree polynomial written as $ax^2 + bx + c = 0$. The generic function of the quadratic equation can be determined as:

$$f^2(x) = ax^2 + bx + c \quad (1)$$

whose discriminant $b^2 - 4ac$ is positive, with x representing an unknown, with a , b and c representing constants, and with a $x \neq 0$, the quadratic formula is:

$$x = -b \pm \frac{\sqrt{b^2 - 4ac}}{2a} \quad (2)$$

where the plus-minus symbol \pm indicates that the quadratic equation has two solutions. When written separately, they become:

$$\begin{aligned} x &= -b + \frac{\sqrt{b^2 - 4ac}}{2a} \quad \text{and} \\ x &= -b - \frac{\sqrt{b^2 - 4ac}}{2a} \end{aligned} \quad (3)$$