

Demonstre que $[-b \pm \sqrt{b^2 - 4.a.c}]/2.a$ são raízes da função quadrática $f(x) = a.x^2 + b.x + c$.

Exemplo: $f(x) = x^2 - x - 2 = 0$,
quando $x = [1 \pm \sqrt{1 + 8}]/2 = (1 \pm 3)/2$
 $x = 2$ e $x = -1$

$$x^2 + \frac{2.x.b}{2.a} + \frac{b^2}{4.a^2}$$

$$= \pm \sqrt{\frac{b^2 - 4.a.c}{4.a^2}}$$

$$x =$$

$$x^2 + \frac{x.b}{a} + \frac{c}{a} = 0$$

$$x + \frac{b}{2.a}$$

$$\left(x + \frac{b}{2.a}\right)^2$$

$$\text{seja } f(x) = a.x^2 + b.x + c = 0$$

$$= \pm \sqrt{\frac{b^2 - 4.a.c}{2.a}}$$

$$\frac{-b \pm \sqrt{b^2 - 4.a.c}}{2.a}$$

$$= \frac{b^2 - c}{4.a^2 a}$$

$$x^2 + \frac{x.b}{a} = \frac{-c}{a}$$

$$= \frac{b^2 - 4.a.c}{4.a^2}$$

$$x^2 + \frac{2.x.b}{2.a} = \frac{-c}{a}$$



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