



解の公式の導き方 2

$$ax^2 + 2b'x + c = 0 \quad a \neq 0$$

$$a\left(x^2 + \frac{2b'}{a}x\right) + c = 0$$

$$a\left\{\left(x + \frac{b'}{a}\right)^2 - \left(\frac{b'}{a}\right)^2\right\} + c = 0$$

$$a\left(x + \frac{b'}{a}\right)^2 - \frac{b'^2}{a} + c = 0$$

$$a\left(x + \frac{b'}{a}\right)^2 = \frac{b'^2 - ac}{a}$$

$$\left(x + \frac{b'}{a}\right)^2 = \frac{b'^2 - ac}{a^2}$$

$$x + \frac{b'}{a} = \pm \sqrt{\frac{b'^2 - ac}{a^2}}$$

$$x + \frac{b'}{a} = \pm \frac{\sqrt{b'^2 - ac}}{|a|}$$

$$x + \frac{b'}{a} = \pm \frac{\sqrt{b'^2 - ac}}{a}$$

$$x = -\frac{b'}{a} \pm \frac{\sqrt{b'^2 - ac}}{a}$$

$$x = \frac{-b' \pm \sqrt{b'^2 - ac}}{a}$$