

## TÄYDELLINEN TOISEN ASTEEN YHTÄLÖ

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$$ax^2 + bx + c = 0, \quad a \neq 0$$

① kaava

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

③ sijoittaminen

$$x =$$

②

$$a =$$

$$b =$$

$$c =$$

esim  
 96b)  $(x+1)^2 = 4x+3$   
 $x^2+2x+1-4x-3=0$  ②

$$x^2-2x-2=0$$

⑤ 
$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$
 (s. 118)

$$= \frac{-(-2) \pm \sqrt{(-2)^2 - 4 \cdot 1 \cdot (-2)}}{2 \cdot 1}$$

$$= \frac{2 \pm \sqrt{4+8}}{2}$$

$$= \frac{2 \pm \sqrt{3 \cdot 4}}{2}$$

$$= \frac{\cancel{2} \pm 2\sqrt{3}}{2}$$

$$x = \frac{2+2\sqrt{3}}{2}$$

$$\text{tai } x = \frac{2-2\sqrt{3}}{2}$$

$$x = \frac{\cancel{2}}{\cancel{2}} + \frac{2\sqrt{3}}{\cancel{2}}$$

$$\text{tai } x = \frac{\cancel{2}}{\cancel{2}} - \frac{2\sqrt{3}}{\cancel{2}}$$

$$V: x = 1 + \sqrt{3}$$

$$\text{tai } x = 1 - \sqrt{3}$$

$$V: x = 1 \pm \sqrt{3}$$

①

MUISTIKAAVA!

$$(a+b)^2 = a^2 + 2ab + b^2$$

③ yhd. samannuost.

$$a = 1$$

④

$$b = -2$$

$$c = -2$$

$$\sqrt{3 \cdot 4} = \sqrt{3} \cdot \sqrt{4} = 2\sqrt{3}$$