

# Potenssiyhtälö

## Esim Ratkaise yhtälö

$$a) x^2 = 36 \quad ||\sqrt{\quad}$$

$$x = 6 \text{ tai } x = -6$$

$$\text{Koska } 6^2 = 36 \\ (-6)^2 = 36$$

$$b) x^2 = 20 \quad ||\sqrt{\quad}$$

$$x = \sqrt{20} \text{ tai } x = -\sqrt{20}$$

$$c) x^2 = -16$$

Ei ratkaisua

$$d) 3x^2 - 5 = 22$$

$$3x^2 = 22 + 5$$

$$3x^2 = 27 \quad ||:3$$

$$x^2 = 9 \quad ||\sqrt{\quad}$$

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

## Esim Ratkaise yhtälö

$$a) \quad x^3 = 8 \quad \parallel \sqrt[3]{\quad}$$

$$x = 2$$

$$\text{koska } 2^3 = 2 \cdot 2 \cdot 2 = 8$$

$$b) \quad x^3 = -64 \quad \parallel \sqrt[3]{\quad}$$

$$x = -4$$

$$(-4)^3 = (-4) \cdot (-4) \cdot (-4) = -64$$

$$c) \quad x^3 = 10 \quad \parallel \sqrt[3]{\quad}$$

$$x = \sqrt[3]{10}$$