

BINOMIN NELIÖ JA KUUTIO

$$(2x+3)^2 = (2x+3)(2x+3)$$

$2x \cdot 3 = 6x$
 $3 \cdot 2x = 6x$

$$\begin{aligned} &\rightarrow (2x)^2 + 2 \cdot 6x + 3^2 \\ &= 4x^2 + 12x + 9 \end{aligned}$$

Muistikaava

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

ESIM

$$\begin{aligned} (x+3)^2 &= x^2 + 2 \cdot 3x + 3^2 = x^2 + 6x + 9 \\ (3x-5)^2 &= (3x)^2 + 2 \cdot (-15x) + (-5)^2 = 9x^2 - 30x + 25 \\ (x^2 + \frac{1}{2})^2 &= (x^2)^2 + 2 \cdot \frac{1}{2}x^2 + (\frac{1}{2})^2 = x^4 + x^2 + \frac{1}{4} \end{aligned}$$

$$9x^2 - 30x + 25 = (3x - 5)^2 \text{ tai } (-3x + 5)^2$$

$2 \cdot (-15x)$
 $3x \cdot (-5)$ $-3x \cdot 5$

$$(a+b)^3 = a^3 + 3a^2b + 3ab^2 + b^3$$

ESIM 4 s. 20

s. 21-22

52
54
55
57-60

69
71-73
75
77