JUURIFUNKTION DERIVAATTA

⇒ Derivoidaan potenssimuodossa:

$$Dx^r = r \cdot x^{r-1}$$

$$Df^r = r \cdot f^{r-1} \cdot f'$$

esim $D\sqrt{x} = Dx^{1/2} = \frac{1}{2}x^{-1/2} = \frac{1}{2} \cdot \frac{1}{x^{1/2}} = \frac{1}{2\sqrt{x}}$

$\downarrow$

$x \geq 0 \quad \cdots\cdots\cdots > \quad x > 0$

$$D\sqrt{2x-1} = D(2x-1)^{1/2}$$

(← sisäfunktion derivaatta)

$$= \frac{1}{2}(2x-1)^{-1/2} \cdot D(2x-1)$$

$$= \frac{1}{2} \cdot \frac{1}{\sqrt{2x-1}} \cdot 2$$

$$= \frac{1}{\sqrt{2x-1}}$$

ESIM 1–6 s. 39 →

s. 47 – 49

76, 77, 78, 80, 82, 83, 86

90, 91, 99, 102, 103