

## Wortel en logaritme

11.  $2 + {}^3\log(x-3) = 0 \quad \rightarrow \quad x-3 = 3^{-2} \quad \rightarrow \quad x = 3^{1/9}$

12.  $\frac{df}{dx} = \frac{1}{2\sqrt{x}}$       en       $\frac{dg}{dx} = \frac{1}{(x-3) \cdot \ln 3}$

$$y_1 = (2 \cdot \sqrt{x})^{-1}$$

$$y_2 = ((x-3) \cdot \ln 3)^{-1}$$

Intersect levert:  $x = 8,2$

13.  $f(x) = g(x)$

$$y_1 = \sqrt{x}$$

$$y_2 = 2 + \frac{\log(x-3)}{\log 3}$$

Intersect levert:  $x = 4$       of       $x = 21,8$

Dus:  $3 < x < 4$  of  $x > 21,8$