

$$\underline{4.3 = 6}$$

Find grenseværdien

$$\lim_{x \rightarrow 1} \frac{x^{1/3} - 1}{x^{2/3} - 1}$$

Løsning

$$\lim_{x \rightarrow 1} \frac{x^{1/3} - 1}{x^{2/3} - 1} \quad \left[\frac{0}{0} \right]$$

$$\stackrel{\text{L'Hôpital}}{=} \lim_{x \rightarrow 1} \frac{\frac{1}{3} x^{-2/3}}{\frac{2}{3} x^{-1/3}}$$

$$= \frac{1/3}{2/3} = \underline{\underline{1/2}}$$