

S III

2346

$$a) y = 24 \cdot x^{-0,375}$$

$$y' = -0,375 \times 24 \cdot x^{-1,375}$$

$$= -8,952 \cdot x^{-1,375}$$

$$= -9 \cdot x^{-1,375}$$

$$b) y = 3\sqrt{x} - \frac{3}{\sqrt{x}}$$

$$= 3x^{\frac{1}{2}} - 3 \cdot x^{-\frac{1}{2}}$$

$$= \frac{1}{2} \cdot \frac{3}{1} \cdot x^{-\frac{1}{2}} - \left(-\frac{1}{2} \cdot \frac{3}{1}\right) x^{-\frac{3}{2}}$$

$$= \frac{\frac{3}{2}}{2\sqrt{x}} + \frac{3}{2\sqrt{x^{\frac{3}{2}}}}$$

$$y = 2x + \frac{4}{x}$$