

## Bonus 1 - řešení!

① separ. prom.:  $y' = \frac{\sqrt{y}}{x+1}$ ,  $y' = x^2 y^3$ ,  $y' = (y+1)^3$

②  $\frac{dy}{dx} = \frac{x-3}{y^2}$

$$\int y^2 dy = \int (x-3) dx$$

$$\frac{y^3}{3} = \frac{x^2}{2} - 3x + C$$

$y(0) = 2$  :  $\frac{8}{3} = C \Rightarrow \frac{y^3}{3} = \frac{x^2}{2} - 3x + \frac{8}{3}$

$$y = \sqrt[3]{\frac{3x^2}{2} - 9x + 8}$$

③  $y = c \cdot e^{\frac{x^5}{5}}$