Zad. 2 5.5

$$\frac{dy}{dt} = -ky \qquad k = 0{,}1155\ 1/h$$

$$\int_{y_0}^{5} \frac{dy}{y} = \int_{0}^{24} -k\,dt$$

$$\ln|y| \Big|_{y_0}^{5} = -kt \Big|_{0}^{24}$$

$$\ln\left|\frac{5}{y_0}\right| = -24 \cdot (0{,}1155\ 1/h)$$

$$\ln|5| - \ln|y_0| = -2{,}772$$

$$\ln|y_0| = 1{,}6094 + 2{,}772$$

$$\ln|y_0| = 4{,}3814$$

$$y_0 = e^{[4{,}3814]}$$

$$y = 79{,}9498$$