

**Predmet:** Mataliza 1  
**Ukol:** 9.  
**Verze:** 1.  
**Autor:** David Napravnik  
**Prezdivka:** DN

**zadani**

$$\int \frac{2x}{1-x^2} dx$$

**reseni**

**zadani**

$$\int \frac{x+1}{x^2+5x+6} dx$$

**reseni**

$$\begin{aligned} & \int \frac{x+2}{(x+3)(x+2)} - \frac{1}{(x+3)(x+2)} dx \\ & \int \frac{1}{(x+3)} - \frac{1}{(x+3)(x+2)} dx \\ & \int \frac{1}{(x+3)} dx - \int \frac{1}{(x+3)(x+2)} dx \end{aligned}$$

odbocka k parcialnim zlomkum:

$$\begin{aligned} \frac{1}{(x+3)(x+2)} &= \frac{A}{x+3} + \frac{B}{x+2} \\ 1 &= A(x+2) + B(x+3) \\ A &= -1; B = 1 \end{aligned}$$

$$\begin{aligned} & \int \frac{1}{(x+3)} dx - \int \left( \frac{1}{x+2} - \frac{1}{x+3} \right) dx \\ & \log(x+3) - (\log(x+2) - \log(x+3)) + c \\ & 2 * \log(x+3) - \log(x+2) + c \end{aligned}$$

**zadani**

$$\int \frac{x^2-2x-2}{x^2+x-2} dx$$

**reseni**

**zadani**

$$\int \frac{3x+5}{x^2+2x+1} dx$$

**reseni**

**zadani**

$$\int x^2 \cos x dx$$

**reseni**

**zadani**

$$\int \frac{1}{(x+1)\sqrt{x}} dx$$

reseni