

18. cvičení

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Příklady

$$(03) \int_4^{\infty} \frac{x}{(x-1)(x-2)(x-3)} dx$$

$$(04) \int_{-\infty}^0 \frac{x}{x^3-1} dx$$

$$(25) \int_0^{\pi} \frac{\sin x}{\cos^2 x + 1} dx$$

$$(29) \int_{-\infty}^{\infty} \frac{e^x}{e^{2x} - 3e^x + 3} dx$$

$$(35) \int_0^{\pi} \sin^2 x \cos^2 x dx$$

$$(40) \int_0^{\frac{\pi}{4}} \sqrt{\cos x - \cos^3 x} dx$$

$$(42) \int_{-1}^1 x^2 e^{-x} dx$$

$$(44) \int_{-\pi}^{\pi} \frac{\cos^3 x}{\sqrt[3]{\sin x}} dx$$

$$(49) \int_0^1 \arccos^2 x dx$$

$$(48) \int_0^1 x \arcsin x dx$$

$$(62) \int_0^1 x^2 \sqrt{1-x^2} dx$$

$$(71) \int_0^1 \sqrt{\frac{x+1}{x}} dx$$

$$(75) \int_4^{\infty} \frac{1}{x^2} \sqrt{\frac{x-2}{x-4}} dx$$

$$(87) \int_0^{4\pi} \frac{dx}{\cos x + 2 \sin x + 3}$$

$$(95) \int_0^{\frac{\pi}{2}} \frac{dx}{1 + \operatorname{tg} x}$$

Hinty: $y = \cos x$, $y = \sin x$