28. cvičení

Příklady

1. $\displaystyle\int_0^{+\infty} \sin(\text{arccotg } ^\alpha x^\beta)\, dx$

2. $\displaystyle\int_0^{\pi/2} x^a \left(\frac{1}{2}\pi - x\right)^b \text{tg }^c x\, dx$

3. $\displaystyle\int_1^{+\infty} \frac{1}{x^a} \ln \frac{x^2-1}{x^2+1} \arctan \frac{x}{x^3-1}\, dx$

4. $\displaystyle\int_0^{+\infty} \frac{\ln(e^{2x}+e^x+1)}{x^a} \sin x\, dx$

5. $\displaystyle\int_0^{+\infty} \frac{\arctan ^\alpha x}{\ln^\beta(1+x)} \sin x\, dx$

6. $\displaystyle\int_0^1 \arccos ^a(\sqrt{1-x^4}) \cos \frac{1}{\sqrt{1-x}}\, dx$

7. $\displaystyle\int_{1/2}^{+\infty} \frac{\cos \pi x}{\ln^\alpha 2x}\, dx$

8. $\displaystyle\int_0^{+\infty} \frac{\exp(\sin x)}{x^\alpha} \sin 2x\, dx$

9. $\displaystyle\int_0^{+\infty} x^a e^{-(bx+cx^2)}\, dx$

10. $\displaystyle\int_0^{+\infty} \frac{\ln x \sin x}{x \arctan (1-x)}\, dx$

11. $\displaystyle\int_0^{+\infty} \frac{\sin x^\alpha}{\arctan ^\beta x} \sin \frac{1}{x}\, dx$