

MATH 410, FALL 2009

Some integrals for practice:

$$\int \frac{x^5}{\sqrt{1-x^2}} dx$$

$$\int \cos^5(x) \sqrt{\sin(x)} dx$$

$$\int \frac{\sin(x) \cos^3(x)}{1 + \cos^2(x)} dx$$

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

$$\int \frac{1}{e^x + e^{x/2}} dx$$

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

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

$$\int \frac{1}{\sqrt{(x-a)(x-b)}} dx$$

$$\int \left(\frac{\ln(x)}{x}\right)^2 dx$$

$$\int \sqrt{x} \ln^2(x) dx$$

$$\int x^3 e^{-x^2} dx$$

$$\int x^2 \sin(2x) dx$$

$$\int x \ln\left(\frac{1+x}{1-x}\right) dx$$

$$\int \sin(x) \ln(\tan(x)) dx$$

$$\int \frac{\arcsin(x)}{x^2} dx$$

$$\int \ln(x + \sqrt{1+x^2}) dx$$

$$\int \sqrt{\frac{a+x}{a-x}} dx$$