

INTEGRATION PRACTICE

WED, NOV 20, 2013

Problem 1. Find an antiderivative of the following functions:

(1) $x \ln x$

(2) $x^2 \ln x$

(3) $\frac{\sin 2x}{\sin x}$

(4) $\frac{1}{\sqrt{a^2-x^2}}$

(5) $x^2 e^x$

(6) $e^x \cos x$

(7) $x \cos x$

(8) $\frac{1}{x^2-1}$

(9) $\frac{1}{x^2+1}$

(10) $\frac{1}{x^3+1}$

(11) $\frac{1}{x^4+1}$

(12) $\frac{x}{\sqrt{1+2x}}$

(13) $\frac{1}{(1+\sqrt{x})^4}$