Miniexam 2 (8 points total) Math 141, Summer 2016

Name:

Problem 1 Evaluate $\int \frac{dx}{\sqrt{9-x^2}}$.

(a) $\frac{1}{3}\sin^{-1}(\frac{x}{3}) + C$

(b) $\frac{1}{3}\cos^{-1}(\frac{x}{3}) + C$

(c) $\sin^{-1}(\frac{x}{3}) + C$

(d) $\frac{1}{3}\tan^{-1}(\frac{x}{3}) + C$

(e) $\tan^{-1}(\frac{x}{3}) + C$

Problem 2 Evaluate $\int x^6 \ln x dx$.

(a) $\dfrac{x^7 \ln x}{7} - \dfrac{x^7}{49} + C$

(b) $\dfrac{x^6}{7} + C$

(c) $x^7 \ln x - x^7 + C$

(d) $x^7 \ln x + C$

(e) $6x^5 \ln x + x^5 + C$

Problem 3 (i) Evaluate $\int \frac{3x^2-x}{(x^2+1)(x-2)}dx$. (ii) Evaluate $\int e^x \cos(2x)dx$.

Feedback:

1. Any comments (on lectures, homework, quizzes, course, me, etc.)?