Math 221 - Quiz #3 Name _____

You must show all relevant work to receive full credit. The point value of each problem is shown in the left hand margin.

(4) 1. Reduce the following integrals to trigonometric integrals using a trigonometric substitution (Do not evaluate the trigonometric integral).

(a) $\displaystyle\int \frac{x^2}{\sqrt{x^2-1}}\,dx$

(b) $\displaystyle\int \frac{1}{x\sqrt{x^2+4}}\,dx$

(6) 2. Integrate:

(a) $\displaystyle\int \frac{1}{\cos(x)}\,dx$

(b) $\displaystyle\int \frac{1}{x^3+x^2}\,dx$