Quiz 2 on Calculus II

Summer 2009

Name: ___________________________

You may use any resources, including the text, notes, or homework problems, and you are encouraged to work with other students or get outside help. However, you must write up your own solutions. In order to get full credit you must show all your steps.

Evaluate the following integrals.

1. \[ \int_{1}^{2} \frac{4y^2 - 7y - 12}{y(y + 2)(y - 3)} \, dy \]

2. \[ \int \frac{\cos^5 x}{\sqrt{\sin x}} \, dx \]
3. \[
\int_{0}^{2/3} \frac{x^2}{\sqrt{4 - 9x^2}} \, dx
\]

4. \[
\int \frac{x + 4}{x^2 + 2x + 5} \, dx
\]
5. \[ \int \tan^2 \alpha \, d\alpha \]

6. \[ \int \arctan(3y + 1) \, dy \]