

Reading Quiz #9

Name: _____ Class: _____ Student I.D. # _____

Read Sections 5.5-5.8(pages 375-400) and work out the following problems.

381 Evaluate the indefinite integral.

$$381.16 \int \frac{\sin \sqrt{x}}{\sqrt{x}} dx$$

$$381.30 \int x^2 \sqrt{2+x} dx$$

$$381.35 \int \frac{1+x}{1+x^2} dx$$

$$381.36 \int \frac{x}{1+x^4} dx$$

387 Evaluate the indefinite integral.

$$387.10 \int p^5 \ln p dp$$

$$387.13 \int e^{2\theta} \sin 3\theta d\theta$$

$$387.23 \int_1^2 (\ln x)^2 dx$$

$$387.25 \int \cos \sqrt{x} dx$$

$$393.3 \int_{\pi/2}^{3\pi/4} \sin^5 x \cos^3 x \, dx$$

394.13 Use the substitution $x = 2 \tan \theta$, $-\pi/2 < \theta < \pi/2$, to evaluate $\int \frac{1}{x^2 \sqrt{x^2 + 4}} \, dx$

394 Evaluate the indefinite integral.

$$394.24 \int \frac{x^2 + 2x - 1}{x^3 - x} \, dx$$

$$394.25 \int \frac{10}{(x - 1)(x^2 + 9)} \, dx$$

394.33 Make a substitution to express the integrand as a rational function and then evaluate the integral

$$\int_9^{16} \frac{\sqrt{x}}{x - 4} \, dx$$