



CALCULUS II
SPRING 2011

ASSIGNMENT 3.1
DUE SEPTEMBER 9

(1-5) Evaluate the following integrals.

Exercise 1. $\int \frac{r^2}{r+4} dr$

Exercise 2. $\int_0^1 \frac{x-1}{x^2+3x+2} dx$

Exercise 3. $\int_3^4 \frac{x^3-2x^2-4}{x^3-2x^2} dx$

Exercise 4. $\int_1^2 \frac{4y^2-7y-12}{y(y+2)(y-3)} dy$

Exercise 5. $\int \frac{x^2-5x+16}{(2x+1)(x-2)^2} dx$

Exercise 6. Make a substitution to express the integrand as a rational function and then evaluate the integral.

$$\int \frac{dx}{2\sqrt{x+3}+x}$$