Homework 13 - Math 141, Frank Thorne (thornef@mailbox.sc.edu)

Due Friday, November 18

(a) Is the integral $\int_{-1}^{4} \frac{1}{x^2} dx$ defined? Why or why not?

(b) Is the integral $\int_{-1}^{4} x^2 dx$ defined? Why or why not?

(c) Is the integral $\int_{-1}^{4} 0 dx$ defined? Why or why not?

(d) What is the substitution rule for integrals? What does it have to do with the chain rule for derivatives?

(e) What is a definite integral? Explain thoroughly and draw a picture.

(f) Stewart, Ch. 5.5, 7-26, 53-64; even required, odd recommended.

(g) Stewart, Ch. 5.5, 73, 74, 77, 78; Ch. 5 Review (p. 410), 7.