

My Chapter 4 Review

1. $\int \frac{x^2 - x}{\sqrt{x}} dx$

2. If $f(x) = 2 + g(x)$ for $-1 \leq x \leq 1$, then what is the value of $\int_{-1}^1 [f(x) - g(x)] dx$?

3. $\int_{-3}^7 |x + 2| dx$

4. If $f(x) = \int_3^{\tan x} (1-t^2) dt$, then $f'(x) = ?$

5. $\int \sec(3\theta) \tan(3\theta) d\theta$

6. If $\int_1^c \frac{1}{x^2} dx = \frac{1}{2}$, then $c =$

Stuff I should be good at:

Riemann Sums [given a table of values]

Trapezoidal Approximation [given a table of values]

Definite and Indefinite Integrals

Know the rules of Integration

Knowing when to simplify or to use u-sub when integrating

First FTC and Second FTC

Average value AND average rate

All of the problems from the three handouts

Using your calculator to find a definite integral