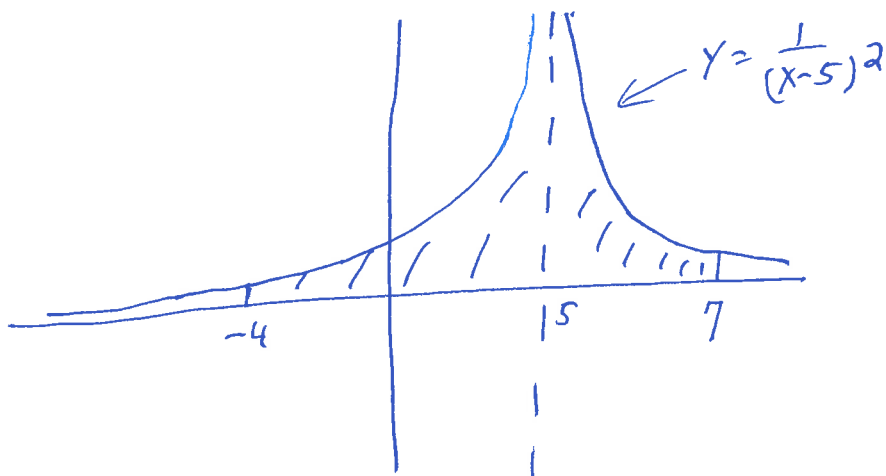


Pictures Exam 3 Math 142 Spring 2016

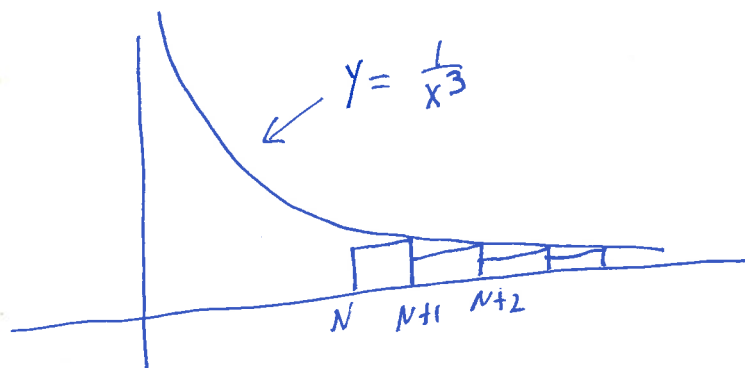
(2)



The integral $\int_{-4}^7 \frac{1}{(x-5)^2} dx$ is the indicated area.

This area might be $+\infty$ or might be some finite positive number. We must do the calculation to see what the actual answer is.

(3)



$$\sum_{k=N+1}^{\infty} \frac{1}{k^3} = \text{the area inside the boxes} \leq \text{the area under the curve} = \int_N^{\infty} \frac{1}{x^3} dx$$