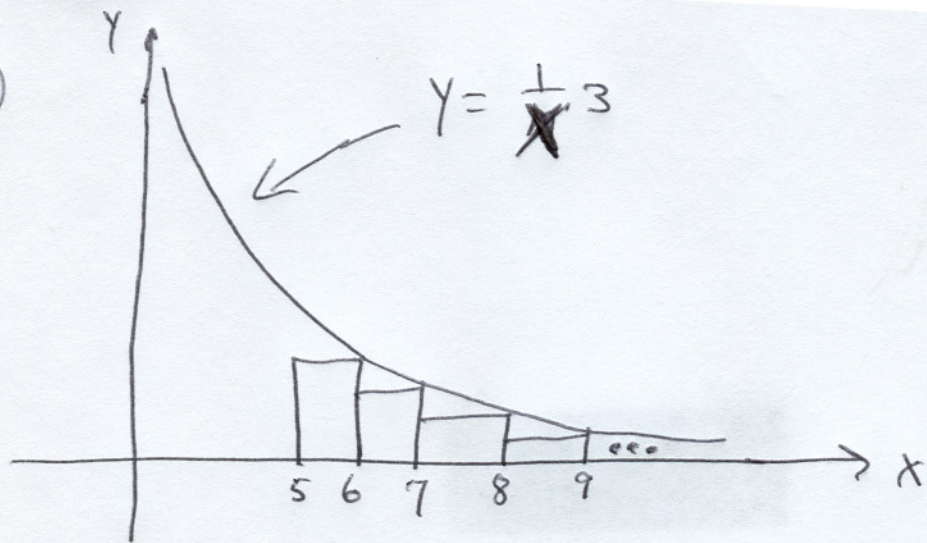


(4)



$$\sum_{n=6}^{\infty} \frac{1}{n^3} = \text{the area inside the boxes} \leq \text{the area under the curve from } x=5 \text{ to } \infty = \int_5^{\infty} \frac{1}{x^3} dx$$

Notice that  $y = \frac{1}{x^3}$  is positive and decreasing.