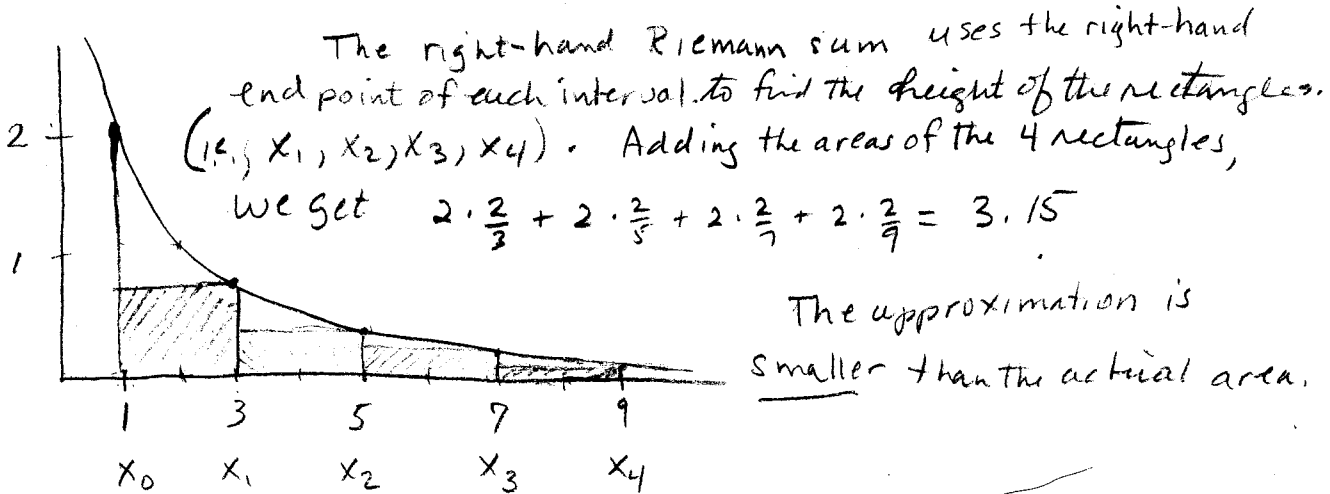


1. Estimate the value of the definite integral $\int_1^9 \frac{2}{x} dx$ by hand using the right-hand sum with $n=4$. Draw a graph of the integrand and illustrate your approximation with rectangles. Is the approximation larger or smaller than the exact value?



$$\Delta x = \frac{9-1}{4} = 2$$

2. Sketch an example of a graph of a function $f(x)$ that is symmetric with respect to the y-axis, has $\int_{-2}^5 f(x) dx = 15$, and $\int_0^2 f(x) dx = 8$. Shade and label appropriate areas on this graph. What is the value of $\int_2^5 f(x) dx$?

