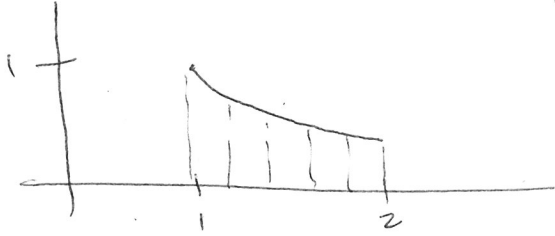


Calculus Study Guide: section 5.1

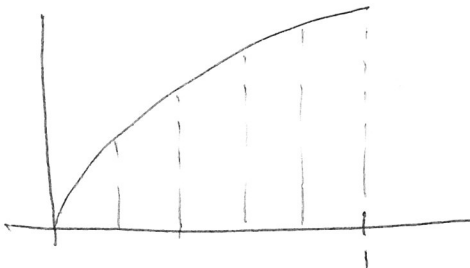
Use  $L_5$  (left-endpoint approximation with 5 rectangles) to approximate the area between  $f(x) = \frac{1}{x}$  and the x-axis on the x-interval  $[1, 2]$ .

$$L_5 = \left( \frac{1}{1} + \frac{1}{1.2} + \frac{1}{1.4} + \frac{1}{1.6} + \frac{1}{1.8} \right) \cdot 0.2$$



answer: 0.745

Use  $M_5$  to approximate the area between  $g(x) = \sin x$  and the x-axis on the x-interval  $[0, 1]$ .



$$\frac{1}{5} (\sin 0.1 + \sin 0.3 + \sin 0.5 + \sin 0.7 + \sin 0.9)$$

answer: 0.460