1. For the function \( f(x) = 4 - 2x \):
   a. Sketch the graph of \( f \) on the interval \([0, 2]\) and find the exact area under the curve using geometry.
   b. Use a Riemann sum with five subintervals of equal length to approximate the area under the curve. Use left endpoints as representative points.
   c. Use a definite integral to determine the exact area under the curve.

2. Find an approximation of the area of the region under the graph of the function \( f(x) = \frac{1}{x} \) on the interval \([1, 3]\) using 6 subintervals. Use right endpoints.
   b. Use a definite integral to determine the exact area under the curve.

3. For the graph of the function shown below, use geometry to evaluate the definite integral of the function.