Name: _____   Row:_____

1. The graph of the function $y = f(x)$ is shown in the diagram below. The interval $[2, 10]$ is split into four equal subintervals, and the lengths of the vertical lines in the figure are 1, 2, 4, 7, and 9. Evaluate the Riemann sum, taking the sample points to be right endpoints.

2. Find the derivative of the function $F(x) = \displaystyle\int_{1}^{x^3} \frac{1}{x^4 + 1}\, dx$.

3. Evaluate the integral $\displaystyle\int_{1}^{4} \left(x + \frac{1}{x} \right) \sqrt{x}\, dx$.