

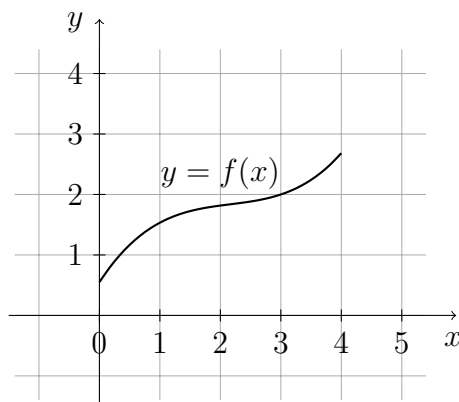
20 minutes

Name: _____

No calculators, no notes, no books. Show all your work (no work = no credit). Write neatly.

1. (5 points) The graph of the function is given with $f(0) = 0.7$, $f(1) = 1.5$, $f(2) = 1.8$, $f(3) = 2$, $f(4) = 2.7$.

Estimate $\int_0^4 f(x) dx$ using four subintervals with



(a) right endpoints;

(b) left endpoints.

2. (5 points) Evaluate the integral $\int_0^4 \frac{x-1}{\sqrt{x}} dx$

3. (5 points) Find the average value of the function $f(x) = \frac{4x}{x^2-3}$ over the interval $[2, 4]$.

bonus problem (5 points extra) Evaluate the integral $\int_{-4}^4 \sqrt{16 - x^2} dx$.