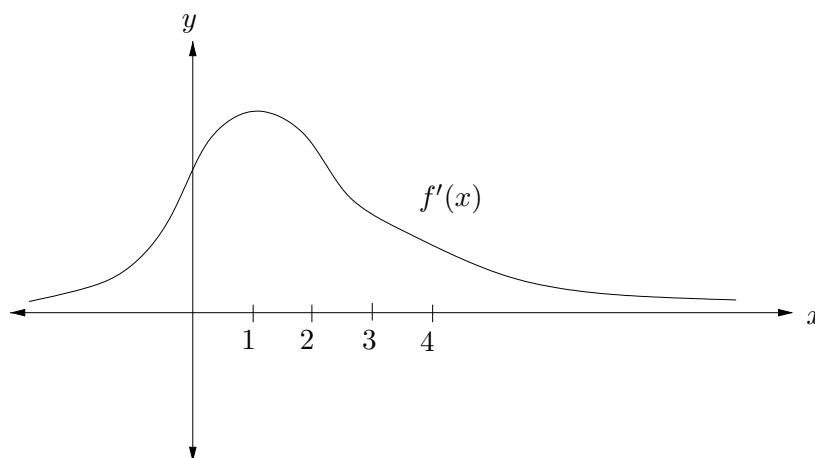


2. (6 points) Using the graph of $f'(x)$ provided, list the following in increasing order:

$$\int_1^3 f'(x) dx, \quad f(3) - f(2), \quad f(2) - f(1)$$



_____ less than _____ less than _____

3. (5 points) (a) Briefly explain the difference between the indefinite integral $\int f(x) dx$ and the definite integral $\int_a^b f(x) dx$.

- (b) What is the connection between a Riemann sum and one or more of the integrals in part (a)? Your answer should include a picture and a clear explanation.