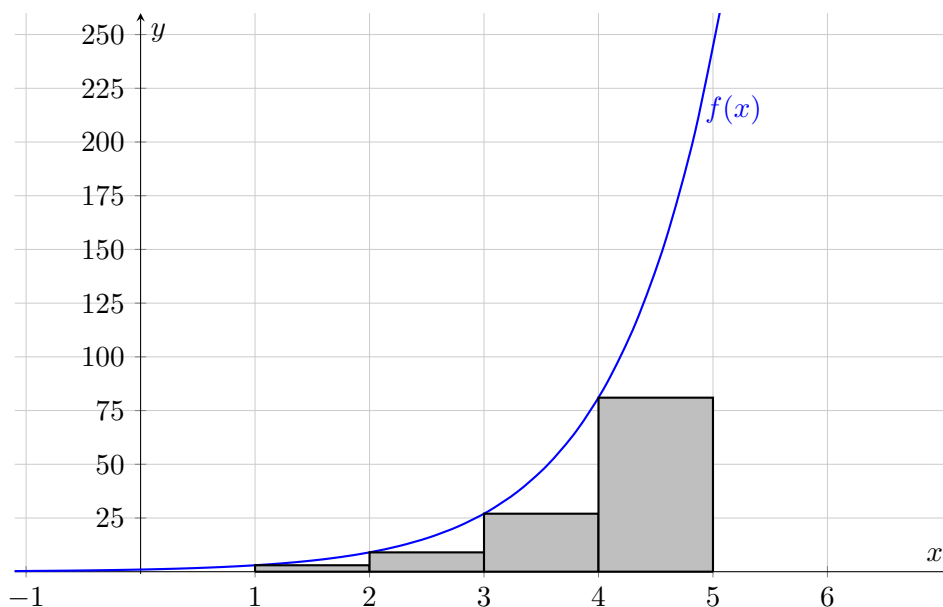


Quiz

Directions: Carefully read each question below and answer to the best of your ability in the space provided. You **MUST** show your work to receive full credit!

- (10 points) Estimate the area under the curve $f(x) = 3^x$ from $x = 1$ to $x = 5$ by partitioning the interval $[1, 5]$ into 4 equal parts and using the left endpoint to determine the height of each rectangle.

Solution:



Since we are partitioning the interval $[1, 5]$ into 4 equal parts, then the step size $\Delta x = \frac{5-1}{4} = 1$. The picture above represents how the left endpoint method works, and the calculation are summarized in the table below.

x_i	$f(x_i)$	$f(x_i)\Delta x$
1	3	3
2	9	9
3	27	27
4	81	81
Total Area		120

Name: _____

Section (circle one): 021 022 023 024

Question:	1	Total
Points:	10	10
Score:		