<u>Class Drill: Estimating the Area Under a Graph by Using Riemann Sums</u></u>

The goal is to estimate the shaded area in the middle figure. You will do this by finding the values of the Riemann sums L_4 and R_4 . This will give you lower and upper bounds for the shaded area.



(A) Draw in the rectangles for the left sum L_4 .

(B) Find the value of L_4 .

- (C) Draw in the rectangles for the right sum R_4 .
- (D) Find the value of R_4 .

(E) Use the values from questions (B)and (D) to build a true inequality

____ < unknown area < _____

<u>Class Drill: Computing Riemann Sums</u>

The goal is to find approximations for the signed area between the graph of the function $f(x) = \frac{1}{x}$ and the *x* axis on the interval [1,7] by computing Left and Right Riemann Sums with 3 rectangles. That is, find values for L_3 and R_3 . Show all details clearly. (Hand calculations! No calculators or cell phones!)