

Please show **all** your work! Answers without supporting work will not be given credit.  
Write answers in spaces provided.

Name: \_\_\_\_\_

1. [5 pts] Write the Left and Right Riemann Sums with 20 rectangles to estimate the area under the curve  $\sin(2x + 4) - 14$  on the interval of  $[60, 80]$ .

**DON'T EVALUATE!!!**

2. [5 pts] Write the Left and Right Riemann Sums with 10 rectangles to estimate the area under the curve  $3 \ln(x^2)$  on the interval of  $[0, 50]$ .

**DON'T EVALUATE!!!**