

Quiz 1  
June 28

Name:

1. Let

$$K = \int_4^{12} \frac{1}{x} dx$$

Find an approximation for  $K$  using right endpoints and  $\Delta x = .5$ . Express it using sigma notation. Is your approximation an under-estimate or over-estimate? Explain why.

2. Give a single expression for the following sum:

$$\sum_{i=1}^{13} 5 \cdot 3^{i+2}$$