

Quiz 5 Calculus 1 11/22/2011

Each problem is worth 5 points. Clear and complete justification is required for full credit.

1. If you use a left-hand sum with $n = 4$ subdivisions to approximate $\int_1^5 \frac{1}{x} dx$, what are:

$$\Delta x =$$

$$\bar{x}_1 =$$

$$\bar{x}_2 =$$

$$\bar{x}_3 =$$

$$\bar{x}_4 =$$

$$f(\bar{x}_1) =$$

$$f(\bar{x}_2) =$$

$$f(\bar{x}_3) =$$

$$f(\bar{x}_4) =$$

$$\sum_{k=1}^4 f(\bar{x}_k) \cdot \Delta x =$$

2. If you use a right-hand sum with $n = 4$ subdivisions to approximate $\int_1^3 x^2 dx$, what are:

$$\Delta x =$$

$$\bar{x}_1 =$$

$$\bar{x}_2 =$$

$$\bar{x}_3 =$$

$$\bar{x}_4 =$$

$$f(\bar{x}_1) =$$

$$f(\bar{x}_2) =$$

$$f(\bar{x}_3) =$$

$$f(\bar{x}_4) =$$

$$\sum_{k=1}^4 f(\bar{x}_k) \cdot \Delta x =$$