
1. (1 pt) Estimate $\int_0^3 x^2 dx$ using left endpoints for $n = 4$ approximating rectangles.

$$\int_0^3 x^2 dx \text{ is approximately } \underline{\hspace{2cm}}$$

2. (1 pt) Estimate $\int_0^3 x^2 dx$ using right endpoints for $n = 5$ approximating rectangles.

$$\int_0^3 x^2 dx \text{ is approximately } \underline{\hspace{2cm}}$$

3. (1 pt) Find the numerical value of $\sum_{k=3}^6 k^2$.

$$\sum_{k=3}^6 k^2 = \underline{\hspace{2cm}}$$

4. (1 pt) Find the numerical value of $\sum_{j=3}^7 (4j - 3)$.

$$\sum_{j=3}^7 (4j - 3) = \underline{\hspace{2cm}}$$

5. (1 pt) Let $\int_{-3}^{1.5} f(x) dx = 4$, $\int_{-3}^{-1.5} f(x) dx =$

$$2, \int_0^{1.5} f(x) dx = 4.$$

$$\text{Find } \int_{-1.5}^0 f(x) dx = \underline{\hspace{2cm}}$$

$$\text{and } \int_0^{-1.5} (4f(x) - 2) dx = \underline{\hspace{2cm}}$$