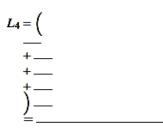
Quiz 5.6 – Definite Integrals of Exponentials and Logarithms

1. (1 pt) alfred Library/AUCI/chapter5/lesson6/quiz/riemann10pet.pg We want to use left-hand, right-hand, and midpoint approximations with n = 4 subintervals of equal width to estimate $\int_{2.25}^{6.25} e^{1.5x} dx$.

(a) The width of each subinterval is $\Delta x =$ _____

(b) If we use a left-hand approximation, then the left-hand endpoints are ______ (as a comma-separated list).

The left-hand approximation is



(c) If we use a right-hand approximation, then the right-hand endpoints are ______ (as a comma-separated list).

The right-hand approximation is

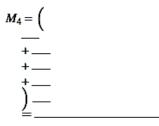
$$R_4 = ($$

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(d) If we use a midpoint approximation, then the midpoints are _____(as a comma-separated list).

The midpoint approximation is



(e) Use the Fundamental Theorem to find the exact area and compare your answer to the approximations that you found above.

 $\int_{2.25}^{6.25} e^{1.5x} dx =$ _____