1. (1 pt) Library/UCSB/Stewart5_5_1/Stewart5_5_1_1-/Stewart5_5_1_1.pg

(a) By reading values from the given graph of f, use five rectangles to find a lower estimate and an upper estimate for the area under the given graph of f from $x = 0$ to $x = 10$.
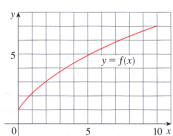
Lower estimate $\approx$ _____

Upper estimate $\approx$ _____

(b) Repeat part (a) with 10 rectangles in each case.

Lower estimate $\approx$ _____

Upper estimate $\approx$ _____

Answer(s) submitted:

-
-
-
-

(incorrect)

2. (1 pt) Library/UCSB/Stewart5_5_1/Stewart5_5_1_2-/Stewart5_5_1_2.pg

(a) Use six rectangles to find left-hand, right-hand, and midpoint estimates for the area under the given graph of f from $x = 0$ to $x = 12$.
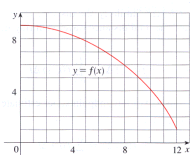
$L_6 \approx$ _____

$R_6 \approx$ _____

$M_6 \approx$ _____

$\boxed{?}$ 1. (b) Is L_6 an underestimate or overestimate of the exact area?

$\boxed{?}$ 1. (c) Is R_6 an underestimate or overestimate of the exact area?

(d) Which of the numbers L_6, R_6, or M_6 appears to be the best estimate?

- A. R_6
- B. L_6
- C. M_6
- D. Impossible to tell.

Answer(s) submitted:

-
-
-
-
-
-

(incorrect)

3. (1 pt) Library/UCSB/Stewart5_5_1/Stewart5_5_1_3.pg

(a) Estimate the area under the graph of $f(x) = 2/x$ from $x = 1$ to $x = 5$ using four approximating rectangles and right endpoints.

$R_4 =$ _____

(b) Repeat part (a) using left endpoints.

$L_4 =$ _____

(c) By looking at a sketch of the graph and the rectangles, determine for each estimate whether is overestimates, underestimates, or is the exact area.

$\boxed{?}$ 1. L_4

$\boxed{?}$ 2. R_4

Answer(s) submitted:

-
-
-
-

(incorrect)

4. (1 pt) Library/UCSB/Stewart5_5_1/Stewart5_5_1_4.pg

(a) Estimate the area under the graph of $f(x) = 25 - x^2$ from $x = 0$ to $x = 5$ using five approximating rectangles and right endpoints.

$R_5 =$ _____

(b) Repeat part (a) using left endpoints.

$L_5 =$ _____

(c) By looking at a sketch of the graph and the rectangles, determine for each estimate whether it overestimates, underestimates, or is the exact area.

$\boxed{?}$ 1. R_5
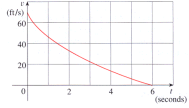
$\boxed{?}$ 2. L_5

Answer(s) submitted:

-
-
-
-

(incorrect)

5. (1 pt) Library/UCSB/Stewart5_5_1/Stewart5_5_1_15-/Stewart5_5_1_15.pg

The velocity graph of a braking car is shown. Use the Midpoint Rule with $n = 6$ to estimate the distance (in ft) traveled by the car while the brakes are applied.

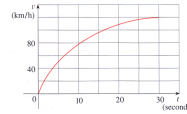Distance traveled $\approx$ _____ ft

Answer(s) submitted:

-

(incorrect)

6. (1 pt) Library/UCSB/Stewart5_5_1/Stewart5_5_1_16-/Stewart5_5_1_16.pg

The velocity graph of a car accelerating from rest to a speed of 120 km/h over a period of 30 seconds is shown. Use the Midpoint Rule with $n = 6$ to estimate the distance (in km) traveled during this period.

Distance traveled $\approx$ _____ km

Answer(s) submitted:

-

(incorrect)