

1. (1 pt) (A) Estimate the area under the graph of

$$f(x) = 16 - x^2$$

from $x = 0$ to $x = 4$ using 4 approximating rectangles and right endpoints.

Estimate = _____

(B) Repeat part (A) using left endpoints.

Estimate = _____

(C) Repeat part (A) using midpoints.

Estimate = _____

Answer(s) submitted:

- 34
- 50
- 43

(correct)

2. (1 pt) Speedometer readings for a motorcycle at 12-second intervals are given in the table.

t(s)	0	12	24	36	48	60
v (ft/s)	25	25	23	24	25	27

(a) Estimate the distance traveled by the motorcycle during this time period using the velocities at the beginning of the time intervals.

(b) Give another estimate using the velocities at the end of the time periods.

Answer(s) submitted:

- 1464
- 1488

(correct)

3. (1 pt) (A) Estimate the area under the graph of

$$f(x) = 3x^3 + 5$$

from $x = -1$ to $x = 5$, first using 6 approximating rectangles and right endpoints, and then improving your estimate using 12 approximating rectangles and right endpoints.

6 Rectangles = _____

12 Rectangles = _____

(B) Repeat part (A) using left endpoints.

6 Rectangles = _____

12 Rectangles = _____

(C) Repeat part (A) using midpoints.

6 Rectangles = _____

12 Rectangles = _____

Answer(s) submitted:

- 705
- 597
- 327
- 408
- 489
- 495.75

(correct)