

Due date: _____

Name: _____

1. Estimate the area under the graph of $f(x) = 2/x$ between $x = 1$ and $x = 3$ using...

a) ...a lower sum with two rectangles of equal width.

b) ...a lower sum with four rectangles of equal width.

c) ...an upper sum with four rectangles of equal width.

d) ...midpoints with four rectangles of equal width.

b) ...midpoints with four rectangles of equal width.

4. Estimate the area under the graph of $f(x) = \sqrt{x + 1}$ between $x = 0$ and $x = 2$ using midpoints with four rectangles of equal width.

5. Estimate the distance traveled in 30 seconds given the following sample velocities...

Time (s)	0	5	10	15	20	25	30
Velocity (m/s)	1	1.2	1.7	2.0	1.8	1.6	1.4

a) ...using left-endpoint values.

b) ...using right-endpoint values.

6. Estimate the distance traveled in 12 minutes given the following sample velocities using right-endpoint values.

Time (min)	0	3	6	9	12
Velocity (ft/min)	6.2	8.6	10.1	6.5	7.8

7. Estimate the distance traveled in 24 seconds given the following sample velocities using left-endpoint values.

Time (s)	0	6	12	18	24
Velocity (km/s)	2.7	3.1	5.2	4.9	4

Q: A man was driving his truck. His lights were not on. The moon was not out. Up ahead, a woman was crossing the street. How did he see her?

Optional exercises from the Stewart textbook if you'd like more practice:

5.1 (p.375) #1-7 odd, 13, 15