4-2, 4-6 Riemann Sums WS: Using Tables of Values

1) Selected values of a function, f, are given in the table below:

x	0	5	8	9	12	18	20
f(x)	4	2	3	7	3	6	10

a) Give the middle approximation with 3 subintervals for f on the interval [0, 20]

x	0	5	8	9	12	18	20
f(x)	4	2	3	7	3	6	10

b) Use right-handed rectangles to approximate the area with 3 subintervals for f on the interval [0, 20]

x	0	5	8	9	12	18	20
f(x)	4	2	3	7	3	6	10

c) Use left-handed rectangles to approximate the area with 3 subintervals for f on the interval [0, 9]

x	0	5	8	9	12	18	20
f(x)	4	2	3	7	3	6	10

d) Use trapezoids to approximate the area with 2 subintervals for f on the interval [0, 20]

2) Selected values of a function, f, are given in the table below:

x	1	3	7	10	12	13	16	17	20
f(x)	3	6	1	9	15	2	4	5	6

a) Give the middle approximation with 2 subintervals for f on the interval [1, 20]

x	1	3	7	10	12	13	16	17	20
f(x)	3	6	1	9	15	2	4	5	6

b) Use right-handed rectangles to approximate the area with 3 subintervals for f on the interval [3, 17]

x	1	3	7	10	12	13	16	17	20
f(x)	3	6	1	9	15	2	4	5	6

c) Use left-handed rectangles to approximate the area with 4 subintervals for f on the interval [1, 12]

x	1	3	7	10	12	13	16	17	20
f(x)	3	6	1	9	15	2	4	5	6

d) Use trapezoids to approximate the area with 3 subintervals for f on the interval [3, 17]