

You must justify your answers to receive full credit.

You may use the formula sheet available on the class webpage.

- 5.4: Q9, 12
- 5.5: Q4, 8, 11
- 5.5: Q14, 17
- 5.4 Q35, 5.5 Q33 (You can use FTC2 on both of these.)
- 5.5 Q41, 42
- 5.6: Q1, 3, 14
- 5.6: Q19, 20
- 5.6: Q39, 40, 43 (Hint: the notation in Q43 means  $\int_e^{e^2} \frac{1}{t \ln t} dt$ .)
- 5.7: Q5, 10, 11

1. Estimate the following integrals using Riemann sums with the indicated number of subintervals:

a)  $\int_3^5 \frac{1}{1 + \cos \sqrt{x}} dx$ , 4 subintervals

b)  $\int_{0.5}^{1.5} f(x) dx$ , 5 subintervals, where  $f$  is given as in the table below:

$x$	$f(x)$
0.0	1.41
0.1	1.41
0.2	1.40
0.3	1.39
0.4	1.38
0.5	1.37
0.6	1.35
0.7	1.32
0.8	1.30
0.9	1.27
1.0	1.24
1.1	1.20
1.2	1.17
1.3	1.12
1.4	1.08
1.5	1.03
1.6	0.93

— END —