Calculus III: Homework

Material for Midterm Exam 1

Section	Exercises
3.5	Textbook #s 67, 68, 69, 71, 77, 78, 87, 90 Supplemental Exercises: 1-8
6.3	Textbook #s 2, 3, 6
6.5	Textbook #s 33, 34, 36 Supplemental Exercises: 9-11
10.5	Textbook #s 5, 9, 11, 19, 21, 27, 28, 34,35, 45 Supplemental Exercises: 12-14
10.6	Textbook #s 2, 7, 17, 19, 25, 31, 33, 34 Supplemental Exercises: 15-17
10.7	Textbook #s 1, 8, 11, 13, 20, 21, 29, 30 Supplemental Exercises: 18-19
11.1	Textbook #s 7, 13, 16, 21, 24, 26, 40, 43, 53, 56, 59, 75, 107, 109 Supplemental Exercises: 20-22
11.2	Textbook #s 10, 11, 14, 38, 43, 48, 49 Supplemental Exercises: 23-25

Material for Midterm Exam 2

Section	Exercises
11.2	Be able to state the precise, formal definition for convergence of an infinite series
11.3	Textbook #s ***6***, ***14***, 23, 27, be able to prove the divergence of the harmonic series $\sum \frac{1}{n}$ and the convergence of $\sum \frac{1}{n^2}$ using Riemann sums
11.4	Textbook #s 1, ***2***, ***6***, 11, ***15***, 25, 27, 29
11.5	Textbook #s ***2***, 3, ***4***, 15, ***16***, 17, 21, ***22***, ***23***
11.6	Textbook #s 1,5, ***13***, ***14***, ***15***, 18, 25, ***26***, 33, 35, ***42***
11.7	Textbook #s 3, ***10***, 11, 13, 17, ***22***, ***23***, ***31***, ***36***, 37
11.8	Textbook #s 1, ***3***, 5, ***6***, 11, ***12***, 13, 15, 21, ***25***, ***26***
11.9	Textbook #s ***2***, ***7***, ***8***, 11, ***12***, 13,15, ***17***

Bolded exercises *are to be turned in*

Material for Midterm Exam 3

Section	Exercises
12.1	Textbook #s 1-17 odd, 49, ***51***
12.2	Textbook #s 1, 3, 5, ***7***, ***11***, ***13***, 15, 17, ***19***, 35a, ***37a***, 39a
12.3	Textbook #s 1, ***3***, 5, ***7***, ***33***, ***35***, ***39***, be able to prove the formula for the cosine of the angle between two vectors
12.4	Textbook #s 1, ***3***, 5, ***7***, 11, ***13***, 23, ***23***, ***29***, 33
12.5	Textbook #s 1, ***5***, 7, 11, 13, ***15***, ***23***, 25, 29, 31, 47, ***49***, 53, ***57***, 59
12.6	Textbook #s 45, 49, ***53***, ***57***, ***61***, 65, ***69***, ***73*** (identify each surface, graph it in the *xy*, *yz*, and *xz* planes; then give a sketch in the *xyz* coordinate system)

Bolded exercises *are to be turned in*