MAT110

Exercise Sheet

Text Book: Howard Anton 10th Edition

Chapter	Exercise
1.2 Computing Limits	3-32 + Practice Sheet
1.3 Limits at Infinity	9-40 + Practice Sheet
3.6 L'Hospital's Rule	7-45 + Practice Sheet
1.5 Continuity	21,22,29,30 + Practice Sheet
2.1 Tangent Lines	15-18 (b)
Techniques of Differentiation	From Practice Sheet
Successive Differentiation	From Practice Sheet
Leibnitz Theorem	From Practice Sheet
Increasing, Decreasing, Maxima, Minima of a function	From Practice Sheet
Optimization Problems	Problems from rectangular and cylindrical shapes
4.8 Rolle's Theorem and Mean Value Theorem	1-8 + Practice Sheet
3.5 Local Linear Approximation	23-28
9.7 Maclaurin and Taylor Polynomials	7-12,17-24
9.8 Maclaurin and Taylor Series	1-6,11-18
13.3 Partial Derivatives	37-45
13.5 Chain rule for partial derivatives	1-6,17-22
13.8 Maxima and Minima of Functions of two variables	9-19
Taylor Expansion of two variable Functions	From Practice Sheet

11.2 Vectors	7,8,11,12,13,14,15
13.6 Directional derivatives and Gradients	1-8, 9-18, 41-46
13.9 Lagrange Multipliers	5-12+ Optimization problems by using Lagrange multipliers: Solved examples from the text books
10.6 Conic Sections in polar coordinates	1-10
11.8 Cylindrical and Spherical Coordinates	1-12

Text Book: James Stewart

Chapter	Exercise
16.5 Curl and Divergence	1-6
10.5 Conic Sections	1-8, 11-16, 19-24

*** You are strongly suggested to practice, however, problems are not limited to these only anyway*