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|  | Topics | Problem Set | Page number |
| Chapter 16 | **16.1** Functions of Several Variables | 1, 3, 5, 15, 17. | 801 |
| **16.2**: Limits and Continuity | 3, 5, 6, 12, 14, 16, 25, 28, 36, 38, 42 + **Sheet 1**. | 813 |
| **16.3**: Partial Derivatives | 4, 6, 8, 10, 12, 13, 17, 21, 23, 27, 29, 39, 47. | 820 |
| **16.5**: Chain rule | 2,4,6,10,12,14. | 842 |
| **16.8**: Extrema of functions of several variables | 5,11, 15, 20, 23, 24, 26. | 869 |
| Chapter 17 | **17.1**: Double integral | 1 to 10, 13, 16, 18, 19, 20, 21, 23, 25, 26, 27, 29, 31, 32, 33, 37, 38, 39, 43, 44, 50 + **Sheet4**. | 894 |
| **17.2**: Area and Volume | 2, 4, 6, 7, 11, 14, 18, 22, 24, 27, 28, 30, 31, 32 + **Sheet5**. | 903 |
| **17.3**: Double Integral by Polar Coordinate | 1 to 13, 15, 17, 18, 19, 21, 23, 24 + **Sheet6**. | 910 |
| **17.5**: Triple Integral | 2, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 23, 26, 28 + **Sheet7**. | 924 |
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| **17.8**: |  | 947 |
| Chapter 11 | **11.1** Sequences | 3,5,7,11,12,13,16,17,18,23,24,28,29,30,31,32, 33, 34, 36,37,39,41,42. | 531 |
| **11. 2** Convergent or Divergent Series |  2,4,5,6,8,10,14,15,18,20,25,28,30,34,37,39, 42,43,45,46. | 541 |
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| **11. 4** The Ratio and Root Tests | 2,4,6,8,10,11,14,15,18,20,21,23,25,27,28,29,31,33,35,38. | 557 |
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| **11. 6** Power Series | 5,6,7,14,15,19,23,25,27,30,35,36,41,42. | 572 |
| **11. 7** Power Series Representations of Functions | 2,4,6,7,10,13,14,16,19,22,25,29,30,32,33,34,37. | 579 |
| **11. 8** Maclaurin and Taylor Series | 2,4,8,10,13,15,18,19,21,26,29,32,34,36,38,39,42. | 589 |

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| Section(16.2) | Sheet 1 | Q1) Find the following limits, if they exist:Q2) Discuss the continuity of the following functions on their domain: |
| Section(16.3) | Sheet 2 | 1. Using the definition, find of the function
2. Discuss the continuity of the function at where

. Does 1. Find if they exist:
2. Find if they exist:
3. Find if they exist:
4. Let Show that
 |
| Section(16.8) | Sheet 3 | 1. Find the extrema of the function , on the region bounded by and .
2. Let , where and . Find the local extrema and the saddle points if they exist.
3. Find the maximum and the minimum of the function on the region bounded by
 |
| Section(17.1) | Sheet 4 | 1. Sketch the region bounded by the graphs of the given equations, and then evaluate the given integrals
2. Evaluate the double integral
 |
| Section(17.2) | Sheet 5 |  |
| Section(17.3) | Sheet 6 |  |
| Section(17.5) | Sheet 7 |  |