Math 223: Multivariable Calculus
Extended Problem List

This is an extended list of problems in case you would like more practice. The extra problems are completely optional.

- Chapter 1

    - Section 1.1: 6, 7, 10, 15, 17, 19 (property 2 only), 21a, 22, 23.
    - Section 1.2: 9, 10, 11, 17, 19, 20, 21, 30, 32, 37, 45.
    - Section 1.3: 3, 9, 15, 17, 18, 19, 20, 22, 24, 25, 26 (property 3 only), 29, 37.
    - Section 1.4: 5 (it's okay to compute just one way), 9, 13, 17, 23, 25, 26.
    - Section 1.5: 1, 4, 8, 11, 12, 14, 16, 19, 22, 23, 25.
    - Section 1.6: 6, 9, 10, 11, 12.
    - Section 1.7: 1, 9, 11, 15, 18, 19, 20, 21, 22, 23, 24a, 27, 30, 33, 36, 37, 39, 42, 46ab.

- Chapter 2

    - Section 2.1: 2abc, 5, 11, 13, 15, 17, 22, 29, 32, 33, 37, 38, 39, 40, 41, 42, 46.
    - Section 2.2: 3, 7, 8, 11, 12, 13, 19, 23, 33, 35, 39, 45, 47.
    - Section 2.3: 2, 3, 5, 8, 10, 11, 15, 16, 28, 29, 32, 35, 37, 39, 42, 44, 46, 47, 48, 49, 63, 67, 68.
    - Section 2.4: 2, 5, 11, 14, 16, 22, 23, 24abcd, 25, 30.
    - Section 2.5: 2, 3, 4, 5, 8, 11, 13, 24, 25, 28, 29.
    - Section 2.6: 1, 2, 3, 6, 9ab, 11, 12, 13, 14, 15, 20, 22, 25, 27, 28, 31 (just do method b), 33, 36, 38.

- Chapter 3

    - Section 3.1: 3, 5, 7, 8, 9, 10, 13, 14, 15b, 16b, 21 (give a vector equation), 23, 29, 31, 33, 34, 37.
    - Section 3.2: 3, 5, 6, 10, 11, 12ab, 14, 15.
    - Section 3.3: 3, 4, 24a.
    - Section 3.4: 4, 10, 13, 14, 15, 16, 17, 18, 22, 25, 30ab, 33, 37.

- Chapter 4

  - Section 4.1: 4, 5, 11, 16, 17, 21, 22, 24, 25, 27.
  - Section 4.2: 1, 3, 8, 11, 12, 22a, 29, 31, 40, 41, 44.
  - Section 4.3: 1, 6, 13a, 21, 22, 23.

- Chapter 5

  - Section 5.1: 5, 6, 7, 8, 10, 11, 16.
  - Section 5.2: 3ab, 4, 5, 8, 9, 11, 12, 14, 15, 16, 21, 24, 28, 38.
  - Section 5.3: 1, 5, 6, 10, 13, 15.
  - Section 5.4: 2, 5, 11, 16, 20, 21, 25, 26, 29.
  - Section 5.5: 7, 8, 9, 11, 14, 16, 17, 18, 19, 20, 21, 24, 26, 27, 28, 30, 31, 34, 36, 39, 41, 43, 45.

- Chapter 6

  - Section 6.1: 2, 3, 4, 7, 9, 12, 13, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 29, 30, 31, 34, 35, 36, 39, 40.
  - Section 6.2: 3, 4, 8, 9, 10, 13, 14, 15, 18, 19, 20, 21, 23, 25ab, 26, 30, 31, 32, 33.
  - Section 6.3: 1, 2, 3, 4, 5, 6, 11, 12, 18, 20, 26, 27, 28, 31, 32, 33, 34, 37.