

Differential and Integral Calculus (MATH-205)

Department of Mathematics, College of Science, KSU

Third Semester: 1444 (2022-23) (March 11, 2023 – June 22, 2023)

Course Book: Calculus by Earl W. Swokowski et. al. (6th Edition)

List of Exercises

Chapter 8 (Infinite Series):

8.1 Sequences: 2, 7, 11, 12, 14, 18, 22, 26, 28, 30, 31, 33, 37, 40, 42

8.2 Convergent or divergent series: 2, 6, 7, 10, 12, 13, 16, 18, 20, 22, 26, 30, 39, 40, 41, 42, 47, 48

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8.7 Power series representations of functions: 2, 4, 7, 10, 11, 16, 18, 19, 21, 25, 28, 29, 31, 33

8.8 Maclaurin and Taylor series: 9, 10, 11, 13, 16, 26, 27, 35, 36, 37,

Chapter 10 (Vectors and Surfaces):

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10.2 Vectors in three dimensions: 5, 6, 8, 10, 11, 12, 14, 16, 18, 20, 23, 27, 30, 38, 41

10.3 The dot product: 5, 6, 10, 12, 14, 15, 18, 23, 24, 26, 27

10.4 The cross product: 7, 8, 9, 11, 12, 14, 15, 16, 18, 20, 23

10.5 The lines and planes: 2, 8, 9, 12, 15, 20, 21, 28, 35, 42, 47, 51, 54, 55, 57, 60, 61, 64

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Chapter 12 (Partial Differentiation):

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12.2 Limits and continuity of functions of two and three variables: 1, 4, 5, 7, 11, 12, 15, 22, 23-27, 29, 30

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