

MATH 21200 {new sequence starting Spring 2019}

Lists of suggested exercises for students:

Note: each unit of suggested period = 50 minutes.

Suggested periods	Section	Topics	Exercises
1	7.1	The Logarithm Defined as an Integral	3, 5, 7, 11, 14, 19, 23, 30, 31, 37, 38, 61
1	7.3	Hyperbolic Functions	1 – 6, 11, 12, 13, 15, 17, 41, 43, 75, 76*, 78
1	8.1	Using Basic Integration Formulas	1 – 7, 9, 10, 12, 15, 21, 27, 29, 32, 33, 45, 51
2	8.2	Integration by Parts	5, 8, 9, 13, 17, 21, 25 – 33, odd, 39, 41, 47, 51, 57, 64a, 67, 69
1	8.3	Trigonometric Integrals	7, 11, 13, 15, 17, 19, 35, 37, 41
2	8.4	Trigonometric Substitution	1, 5, 9, 11, 17, 19, 23, 31, 35, 39, 43, 51, 53, 57, 58, 59
1.5	8.5	Integration of Rational Functions by Partial Fractions	11, 15, 16, 19, 25, 27, 28, 31, 33, 35, 39, 41
1	8.7	Numerical Integration	3, 5, 9 (Skip error analysis.)
2	8.8	Improper Integrals	1, 2, 3, 5, 6, 17, 19, 20, 21, 27, 51, 53, 54, 55, 57, 59, 65
1	10.1	Sequences	1, 3, 4, 6, 9, 11, 16, 17, 19, 23, 35, 37, 40, 42, 45 – 53, odd, 63, 67, 92, 97, 107, 121, 123, 137
2	10.2	Infinite Series	1, 5, 7, 8, 9, 13, 17, 19, 22, 23, 27, 31, 33, 35, 39, 45, 53, 57, 65, 69, 79, 81, 84, 89, 97, 100*, 103*
2	10.3	The Integral Test	3, 6, 7, 11, 15, 17, 18, 23, 27, 37, 47, 51, 52, 61, 63, 64
2	10.4	Comparison Test	1 – 6, 9, 10, 13, 15, 17, 19, 20, 21, 22, 25, 26, 35, 47, 49, 55, 58, 59, 60, 62
2	10.5	Absolute Convergence: The Ratio and Root Tests	1, 3 – 6, 9, 11, 13, 15, 27, 29, 35, 36, 42, 43, 67, 70*
2	10.6	Alternating Series and Conditional Convergence	1, 3, 4, 6, 7, 11, 15, 18, 19, 22, 23, 24, 25, 27, 31, 32, 34, 35, 39, 49, 51, 63, 67, 75
2.5	10.7	Power Series	5, 9, 11, 12, 15, 21, 29, 31, 32, 37, 41, 53
2	10.8	Taylor and Maclaurin Series	1, 2, 3, 4, 5, 7, 11, 13, 15, 19, 21, 22, 23, 25, 29, 30, 31, 35, 37, 40, 41
1.5	10.9	Convergence of Taylor Series	1 – 7, odd, 8, 10, 11, 13, 15, 21, 22, 25, 31, 39, 45, 46, 47*, 50*, 53*

1	10.10	The Binomial Series and Applications of Taylor Series	3, 7, 11, 13, 23, 27, 29, 33, 59*, 61, 67, 68
2	11.1	Parametrizations of Plane Curves	2, 3, 4, 5, 6, 7, 8, 9, 10, 13, 16, 17, 19 – 25, 29, 31, 33, 37, 38, 43
2	11.2	Calculus of Parametric Curves	1, 5, 9, 11, 13, 26, 27, 41
1	12.1	Three-Dimensional Coordinate Systems	1, 3, 6, 7, 11, 13, 14, 17, 20, 21, 26, 27, 31, 32, 33, 35, 37, 39, 41, 43, 44, 55, 59, 63, 65, 71
1	12.2	Vectors	3, 5, 9, 11, 13, 14, 15, 17, 19, 21, 25, 27, 29, 31, 33, 35, 41
1	12.3	The Dot Product	1, 2, 3, 5, 7, 8, 19, 20, 25, 29, 45
1	12.4	The Cross Product	1, 3, 4, 7, 11, 12, 15, 17, 18, 19, 21, 27, 29, 30, 31
2	12.5	Lines and Planes in Space	3, 7, 9, 17, 19, 22, 23 – 31, odd, 35, 41, 45, 47, 51, 57, 59, 61, 67, 71, 72, 75
2	12.6	Cylinders and Quadric Surfaces	1 – 12 (6/e has wrong picture – fix), 13, 14, 15 – 31, odd, 41, 67
1	14.1	Functions of Several Variables	1, 2, 3, 5, 6, 8, 9, 11, 14, 15, 16, 18, 19, 23, 49, 51, 57, 61, 64
2	14.2	Limits and Continuity in Higher Dimensions	5, 9, 11, 13, 19, 21, 29, 31, 33, 35, 39, 41, 42, 43, 45, 47, 49, 61, 62, 72, 73*, 75*, 77*
1	14.3	Partial Derivatives	4, 5, 7, 8, 9, 11, 14, 16, 19, 25, 26, 27, 35, 36, 43, 46, 47, 57, 85, 88, 89, 90, 93, 94
1.5	14.4	The Chain Rule	1, 5, 7, 8, 9, 10, 27, 28, 29, 31, 33, 35, 34, 36, 37, 38, 41, 45, 51, 52