

MATH 112 – Trig and Functions

MATH 112 · SUGGESTED HOMEWORK · SPRING 2023

Section	Exercises
Day One § P.2: Exponents § P.3: Radicals and Rational Exponents § P.4: Polynomials	→ Carefully RE-READ and UNDERSTAND the Syllabus ← 55, 57, 61, 107, 109, 111, 112, 113, 114 51, 53, 80, 89, 91, 97, 99, 111, 112, 113, 114 21, 29, 39, 47, 69, 93, 95
§ P.5: Factoring Polynomials § P.6: Rational Expressions § P.7: Equations	9, 15, 23, 29, 37, 45, 47, 65, 71, 79, 83, 103, 104, 138 41, 46, 53, 71, 72, 76, 79, 81, 39, 41, 97, 99, 111, 121, 123, 131, 169
§ 1.2: Basics of Functions and Graphs	13, 15, 29, 33, 35, 43, 45, 59, 61, 62, 71-75(odd), 81, 85, 89, 93, 122-126
§ 1.3: More on Functions and Graphs	11, 13, 33, 39, 45, 47, 52, 53, 63, 69, 77, 83-91(odd), 90, 92
§ 1.4: Linear Functions and Slope § 1.5: More on Slope	7, 15, 31, 33, 37, 43, 49, 67, 79, 85 1, 5, 9, 11, 21, 25,
§ 1.5: Average Rate of Change § 1.6: Transformations of Functions (1)	15, 17, 29, 31(a) (may use calculator for some calculations) 17-23(odd), 33, 35, 36, 53, 55, 145
§ 1.6: Transformations of Functions (2)	47, 48, 57, 59, 67, 69, 71, 77, 146, 147
§ 1.7: Composite Functions	9, 27, 35, 47, 53, 59, 63, 73, 75, 83, 85, 91, 93, 95, 96, 120
§ 1.8: Inverse Functions (1)	3, 5, 7, 17, 19, 25, 27, 28, 29-33(all), 36, 37, 53
§ 1.8: Inverse Functions (2) § 1.9: Distance Formula	55, 57, 59, 63 35, 45, 53, 57, 59, 63
Exam 1	
§ 2.1: Complex Numbers § 2.2: Quadratic Functions (1)	5, 7, 17, 21, 27, 37, 49, 51 5, 7, 11, 17, 41
§ 2.2: Quadratic Functions (2) § 2.3: Polynomial Functions	8, 31, 43, 65, 71 3, 7, 9, 13, 15-18, 23, 25, 31, 37, 43, 47, 57, 67, 69
§ 2.4: Dividing Polynomials	9, 11, 13, 15, 27, 29, 43, 44, 45, 52 (you do NOT have to use synthetic Division)
§ 2.5: Zeros of Polynomial Functions	25, 26, 27, 43, 46, 47, 48, 51, 91
§ 2.6: Rational Functions (1)	5, 7, 15-20, 25, 27, 29, 31, 37, 39, 49, 57, 65, 89, 95
§ 2.6: Rational Functions (2)	33, 35, 41, 43, 55, 73, 91, 93, 97
§ 2.7: Rational Inequalities (1)	17, 27, 35, 43, 53, 55, 61, 66, 68, 70
§ 2.7: Rational Inequalities (2)	25, 37, 39, 41, 57, 59, 63, 65, 67, 69
§ 3.1: Exponential Functions	19-24, 35, 39, 41, 42, 51, 61, 63, 64, 88, 90, 91

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Section	Exercises
§ 3.2: Logarithmic Functions	1, 7, 9, 13, 21, 23, 27, 33, 43, 48-52, 65, 73, 83-101 (odd) 107, 109, 111, 112
Exam 2	
§ 3.3: Properties of Logarithms	5, 9, 13, 29, 30, 37, 41, 57, 67, 69, 83, 88, 93, 94, 96, 97, 99, 137 Take advantage of this time to get caught up on your weak sections
§ 3.4: Exponential and Log Equations (1)	5, 9, 19, 21, 33, 41, 43, 63, 71, 75, 83, 89, 91, 94, 95, 99, 102
§ 3.4: Exponential and Log Equations (2)	16, 22, 37, 42, 45, 64, 79, 87, 92, 93, 97, 100, 101, 117
§ 4.1: Angles and Radian Measure	15, 19, 25, 29, 41, 43, 45, 47, 63, 65, 69, 77, 80, 81
§ 4.2: Trig Functions: The Unit Circle	3, 5, 7, 17, 19, 23, 31, 35, 41, 55, 57, 59, 63, 67, 71, 77
§ 4.3: Right Triangle Trigonometry	1, 7, 9, 11, 19, 29, 33, 35, 53, 56, 57, 58
§ 4.4: Trig Functions of Any Angle (1)	1, 9, 11, 13, 16, 19, 21, 25, 29, 31, 67, 71, 78, 85, 87, 93, 99 Any instructions: "for each of the six trig functions", just work the sin, cos, tan, sec
§ 4.4: Trig Functions of Any Angle (2)	27, 32, 33, 89, 91, 95 Any instructions: "for each of the six trig functions", just work the sin, cos, tan, sec
§ 4.5: Graphs of Sine and Cosine	5, 11, 35, 39, 57, 61, 63, 65
§ 4.6: Graphs of Other Trig Functions	1-4
§ 4.7: Inverse Trig Functions (1)	1, 9, 11, 15, 25, 29, 33, 35, 39, 43, 55, 57, 65, 71
§ 4.7: Inverse Trig Functions (2)	41, 45, 61, 63, 67, 69, 72, 79
Exam 3	
§ 5.1: Verifying Trig Identities (1)	13, 21, 25, 32, 43, 45, 47, 51, 54, 67
§ 5.1: Verifying Trig Identities (2)	27, 29, 35, 37, 41, 49, 55, 57, 59
§ 5.3: Double-Angle and Half-Angle	1, 5, 7, 11, 13, 23, 27, 29, 31, 51, 59
§ 5.5: Trigonometric Equations (1)	9, 13, 23, 25, 39, 45, 67, 99, 105, 113
§ 5.5: Trigonometric Equations (2)	27, 100, 101, 106, 107, 109
§ 7.1: Systems of Linear Equations (1)	7, 15, 21, 27, 31, 37, 39, 41, 45
§ 7.1: Systems of Linear Equations (2)	60, 61
Exam 4	