

MATH 112 – Trig and Functions

MATH 112 · SUGGESTED HOMEWORK · FALL 2019

Section	Exercises
Day One	→ Carefully RE-READ and UNDERSTAND the Syllabus ←
§ P.2: Exponents	55, 57, 61, 107, 109, 111, 112, 113, 114
§ P.3: Radicals and Rational Exponents	51, 53, 80, 89, 97, 99, 111, 112, 113, 114
§ P.4: Polynomials	21, 29, 39, 55, 69, 93, 95
§ P.5: Factoring Polynomials	9, 15, 23, 29, 37, 45, 47, 65, 71, 79, 83, 103, 104, 138
§ P.6: Rational Expressions	39, 43, 53, 71, 72, 76, 79, 81,
§ P.7: Equations	39, 41, 97, 99, 111, 121, 123, 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 & Graphs	11, 13, 33, 39, 45, 47, 52, 53, 63, 69, 77, 83-91(odd), 90, 92
§ 1.4: Linear Functions and Slope	7, 15, 27, 33, 37, 43, 49, 67, 79, 85
§ 1.5: Average Rate of Change	9, 11, 15, 17, 25, 29, 31 (may use calculator for some calculations)
§ 1.6: Transformations of Functions (1)	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, 121
§ 1.8: Inverse Functions	3, 5, 7, 17, 19, 25, 27, 28, 29-33(all), 36, 37, 53, 55, 57, 59, 63
§ 1.9: Distance Formula	35, 45, 53, 57, 59, 63
§ 2.1: Complex Numbers	5, 7, 17, 21, 27, 37, 49, 51
§ 2.2: Quadratic Functions (1)	5, 7, 11, 17, 41
§ 2.2: Quadratic Functions (2)	8, 31, 43, 65, 71
§ 2.3: Polynomial Functions	3, 7, 9, 13, 15-18, 23, 25, 31, 37, 43, 47, 57, 67, 69
Exam 1	
§ 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 (1)	25, 27, 29, 31, 43, 47, 91
§ 2.5: Zeros of Polynomial Functions (2)	46, 48, 51
§ 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, 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
§ 3.2: Logarithmic Functions	1, 7, 9, 13, 21, 23, 27, 33, 43, 48-52, 65, 73, 83-101 (odd) 107, 109, 111, 112
§ 3.3: Properties of Logarithms	5, 9, 13, 29, 30, 37, 41, 57, 67, 69, 83, 88, 93, 94, 96, 97, 99, 134(a) 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

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Section	Exercises
Exam 2	
§ 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
§ 4.4: Trig Functions of Any Angle (1)	1, 9, 11, 13, 16, 19, 21, 25, 29, 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, 31, 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
§ 5.1: Verifying Trig Identities (1)	13, 21, 25, 32, 43, 45, 47, 51, 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, 13, 23, 27, 29, 31, 51, 59
Exam 3	
§ 5.2: Sum and Difference Formulas § 5.4: Product-to-Sum Formulas	
§ 5.5: Trigonometric Equations (1)	
§ 5.5: Trigonometric Equations (2)	
§ 6.1: The Law of Sines	
§ 6.2: The Law of Cosines	
§ 7.1: Systems of Linear Equations	
§ 7.2: Systems of Linear Equations	
Exam 4	