

MAT1275 Syllabus: WebWork Sets + OERs

Session	Topic	WebWork Set(s)	OER(s)
1	Properties of Integer Exponents	IntegerExponents	“Integer and Rational Exponents via Compound Interest Formulas” by Suman Ganguli
1	Adding and Subtracting Rational Expressions	ReducingRationalExpressions AddRationalExpressions AddRationalExpressions2	
2	Complex Fractions	ComplexFractions-Method1 ComplexFractions-Method2	
3	Fractional Equations	FractionalEquations	
4	Roots and Radicals	HigherRoots HigherRoots-Algebraic	
4	Rational Exponents	RationalExponents	“Integer and Rational Exponents via Compound Interest Formulas” by Suman Ganguli
5	Simplifying Radical Expressions	SimplifyingRadicals	
5	Addition and Subtraction of Radicals	AddSubtractRadicals	
6	Multiplication of Radicals	MultiplyRadicals	
7	Division of Radicals and Rationalization	None	
8	Solving Radical Equations	RadicalEquations	
9	First Examination Complex Numbers	ComplexNumbers	
10	Quadratic Equations The Square Root Property and Completing the Square	SquareRootProperty	“Complex Numbers and Quadratic Equations in Electric Circuits” by Lucie Mingla

11	The Quadratic Formula	QuadraticFormula	
12	Applications of Quadratic Equations	None	“Application and Modeling of Quadratic Equations” by Edison Teano
13	Graphs of Quadratic Functions	ShiftingParabolas ParabolaVertices ParabolaVertices-CtS ParabolaVertices-VertexFormula	“Finding and creating parabolas in the real world” by Ezra Halleck
14	Distance Formula, Midpoint and Circles Perpendicular Bisector	DistanceFormula Circles	
15	Systems of Three Linear Equations in Three Variables	3x3-Systems	
16	Determinants and Cramer’s Rule (optional) Systems involving Nonlinear Equations	NonLinearSystems	
17	Second Examination		
18	Angle Measure and Special Triangles The Trigonometry of Right Triangles	SpecialTriangles TrigonometryRatios	
19	Solving Right Triangles Applications of Static Trigonometry	SolvingRightTriangles SolvingRightTriangles-Inverse Trig	
20	Angle Measure in Radian Trigonometry and the Coordinate Plane	AngleMeasure-Radians CoordinatePlaneTrig	“Discovering Radians” by Olga Ghosh
21	Unit Circles	UnitCircle	
22	Graphs of the Sine and Cosine Functions Graphs of Tangent and Cotangent Functions (optional)	GraphingSineCosine	
23	Fundamental Identities and Families of Identities	None	“Proving Trig Identities” by Ariane Masuda
24	Trigonometric Equations	TrigEquations	“Solving Trig Equations” by Sybil Shaver

25	Oblique Triangles and the Law of Sines The Law of Cosines	LawOfSines LawOfCosines	
26	Third Examination Exponential Functions	ExponentialFunctions	
27	Logarithmic Functions	LogarithmicFunctions	
28	Properties of Logarithms Compound Interest	LogarithmicProperties CompoundInterest	“Compound Interest” by Laura Ghezzi
29	Exponential Equations	ExponentialEquations ExponentialEquations-Calc	
30	Final Examination		