MCR3U – Review Pack

Unit 1 – Quadratics

- Properties of Quadratic Functions
- Forms of a Quadratic Equation
- Review of Factoring
- Zeros of a Quadratic
- Determining Max and Min Values
- Problem Solving with Quadratics
- Writing Quadratic Equations
- Linear-Quadratic Systems
- Transformations

P206 #s 9 – 14 & 26 – 30

Chapter 2 – Functions

- Introduction to Functions
- Solving Inequalities
- Radical Notation
- Operations with Radicals
- Domain and Range
- Function Notation
- Transformations
- Sketching

P206 #s 1 – 4, 16 – 19, 22 & 25

Chapter 3 – Inverse and Equivalent Expressions

- Inverse Functions
- Multiplying Polynomials
- Adding and Subtracting Polynomials
- The Four Operations on Fractions
- Simplifying Rational Expressions
- Multiplying and Dividing Rational Expressions
- Adding and Subtracting Rational Expressions
- Solving Rational Equations

P206 #s 5 – 8, 15, 20, 21, 23, 24, 31, & 32

Chapter 4 – Trigonometry

- Acute Triangles
- Special Angles
- Angle Terminology
- Extending Trig beyond 90 (Unit Circle)
- Trigonometric Identities
- Sine and Cosine Laws
- The Ambiguous Case
- 3D Trig Problems

P408 #s 5 – 14 & 21 – 25

Chapter 5 – Periodic Functions

- Periodic Functions
- Sine and Cosine Curves
- Trigonometric Transformations
- Modelling with Trig Equations
- Solving Trig Equations

P409 #s 15 – 20 & 26

Chapter 6 – Exponential Functions

- Linear, Quadratic and Exponential Functions
- Exponent Laws
- Fractional Exponent Laws
- Properties of Exponential Graphs
- Exponential Transformations
- Exponential Growth and Decay
- Solving Exponential Equations

P408 #s 1 – 4, 27 & 28

Chapter 7 – Sequences, Series and Financial Applications

- Arithmetic Sequences
- Geometric Sequences
- Recursive Sequences
- Arithmetic and Geometric Series
- Pascal's Triangle and the Binomial Theorem
- Simple and Compound Interest
- Future Value and Present Value Annuities

P538 #s 1 – 14