

# TABLE OF CONTENTS

## Chapter 1 - Measuring Systems, Surface Area, and Volume

1.1	Metric Systems.....	5
1.2	Imperial Systems.....	10
1.3	Converting Metric and Imperial Systems .....	15
1.4	Surface Area and Volume of Prisms .....	21
1.5	Surface Area and Volume of Pyramids .....	32
1.6	Surface Area and Volume of Cylinders, Cones, and Spheres .....	41
1.7	Chapter Review.....	52

## Chapter 2 - Radicals

2.1	Number Systems .....	57
2.2	Greatest Common Factor and Least Common Multiple .....	61
2.3	Squares and Square Roots.....	74
2.4	Rational and Irrational Numbers.....	81
2.5	Simplifying Radicals.....	87
2.6	Exponential Notation .....	95
2.7	Chapter Review.....	110

## Chapter 3 - Polynomials

3.1	Classifying Polynomials .....	115
3.2	Multiplying Polynomials .....	123
3.3	Removing Common Factors .....	132
3.4	Factoring $x^2 + bx + c$ .....	138
3.5	Factoring $ax^2 + bx + c$ .....	147
3.6	Special Factors .....	153
3.7	Chapter Review.....	159

## Chapter 4 - Relations and Functions

4.1	Relations .....	165
4.2	Functions.....	173
4.3	Linear Equations .....	182
4.4	Non-Linear Equations.....	190
4.5	Graphing with a Calculator.....	197
4.6	Chapter Review.....	200

## Chapter 5 - Linear Functions

5.1	Slope .....	205
5.2	Rate of Change.....	212
5.3	Graphing Linear Functions .....	221
5.4	Parallel and Perpendicular Lines .....	231
5.5	Applications of Linear Relations .....	236
5.6	Chapter Review.....	240

## Chapter 6 - Linear Equations

6.1	Different Forms of Linear Equations.....	243
6.2	Special Cases of Linear Equations.....	251
6.3	Equations of Parallel and Perpendicular Lines .....	259
6.4	Linear Applications and Modelling .....	265
6.5	Function Notation .....	270
6.6	Chapter Review.....	280

## Chapter 7 - Solving Linear Systems

7.1	Solving Linear Systems by Graphing .....	285
7.2	Solving Linear Systems by Addition .....	292
7.3	Solving Linear Systems by Substitution .....	298
7.4	Problem Solving with Two Variables.....	303
7.5	Chapter Review.....	309

## Chapter 8 - Trigonometry

8.1	Sine, Cosine, and Tangent for Right Triangles .....	313
8.2	Relationships Between Sine, Cosine, and Tangent.....	319
8.3	Special Angles.....	328
8.4	Applications of Trigonometry.....	333
8.5	Compound Trigonometry Applications.....	338
8.6	Chapter Review.....	342

<b>Index</b> .....	397
--------------------	-----