

# MCR3U Homework Questions

SECTION	TOPIC	QUESTIONS
<b>UNIT A: Introduction to Functions &amp; Algebraic Expressions</b>		
1.1	Relations & Functions	1,2,6-12,14
1.2	Function Notation	1,2,5-8,11,17
1.3	EXPLORE - Parent Functions	A-M (record definitions for all yellow highlighted terms, record & complete Table A, record & complete answers for J,K,L,M)
1.4	Domain & Range	1-3,5,9,15,16
1.5	Inverse of a Function	1,2ace,3,4,6ef,7ef,9-12
2.1	Adding & Subtracting Polynomials	1-3,8,12,17 + p. 60-61 Pizzazz Handout
2.2	Multiplying Polynomials	1,2,4de,5cdf,7,9,12,13
7.7	Pascal's Triangle & Binomial Expansions	2ab,3c,4cf,6,9
2.3	Factoring Polynomials	1-3,4acf,5abe,6abcd,7bc,9de,13
2.4	Simplifying Rational Functions	1-3,4df,5ad,6af,10ab,14
2.5	EXPLORE - graphs of Rational Functions	A-L
2.6	Multiplying & Dividing Rational Functions	1-3,4cd,6ad,7b,8,12
2.7	Adding & Subtracting Rational Functions	1ab,2ab,3,4,5b,6df,7ad,8b,9ac,15,16
Chapter Review	Chapter Review	
Test		
<b>UNIT B - Quadratic Functions</b>		
3.1	Properties of Quadratic Functions	1-5,7,8,10-15
3.2	Maximum & Minimum Values	1-5,7cd,8,11,13,14
3.3	Inverse of a Quadratic	1-6,9,11-15
3.4	Operations with Radicals	1-9,12,17

3.5	Solving Quadratic Equations	1,2,5-8,13,15
3.6	Zeroes	1-11,17
3.7	Families of Quadratics	Investigation: A-F, J & 1-3,4ab,5cd,9,11c,12c,13c,15
3.8	Linear-Quadratic Systems	1-3,6-9,11
Chapter Review	Chapter Review	
Test		
<b>UNIT C - Trigonometric Ratios</b>		
5.1	Trigonometric Ratios	1-6,7b,8b,9,10,16,20 (* answer 5b ii<->iii)
5.2	Special Angles	1-8,12,15
5.3	EXPLORE - Non-Acute Ratios	Make Note of terms + Complete Table + A-J
5.4	Ratios $0^{\circ}$ - $360^{\circ}$ (Degrees)	1-9,11,16
5.6	Sine Law	1-5,7,8,11
5.7	Cosine Law	1,2,4,5,9,11,12
5.8	3-D Trigonometric Problems	1,3,4,7 (all right triangles in picture), 8,11,13
5.5	Identities	1-3,5,7,8,10,12
Chapter Review	Chapter Review	
Test		
<b>UNIT D - Sinusoidal Functions</b>		
6.1	Periodic Functions	1,2,4,6-8,13
6.2	INVESTIGATE - Properties of Sinusoidal Functions	A-N
6.3	Interpreting Sinusoidal Functions	1,2,4,6,7
1.6	EXPLORE - Transformations	Review function notation and then A-K
1.7	INVESTIGATE - Horizontal Transformations	1b,2-8,11,12
1.8	Transformations used to Graph Functions	1-6,7c,8b,9c,11,12,18,22

6.4	EXPLORE - Transformations of Sinusoidal Functions	A-U
6.5	Transformations used to Graph Sinusoidal Functions	1-6,9,10
6.6	Investigating Models of Sinusoidal Functions	1-4,5cd,6bc,8,9
6.7	Solving Problems Using Sinusoidal Functions	2-5,8,10
	Pendulum Investigation	
Chapter Review	Chapter Review	
Test		
<b>UNIT E - Exponential Functions</b>		
4.2	Working with Integer Exponents	1-3,4cd,5cd,6cd,7def,8cd,9cd,11ad, 13ceg,14e,15
4.3	Working with Rational Exponents	1-4,5ef,6ef,7,8,10,15,17,18a
4.4	Simplifying with Exponents	1-3,4ef,5ad,6cd,7c,8abc,11,14
4.5	EXPLORE - Properties of Exponential Functions	A-P
4.6	Transformations of Exponentials	1-3,5,7-9,11
4.7	Applications Involving Exponentials	1-4,6-9,14-16
	Newton's Law of Cooling LAB	
Chapter Review	Chapter Review	
Test		
<b>UNIT F - Sequences &amp; Series &amp; Financial Applications</b>		
7.1	Arithmetic Sequences	1-4,6-11,13ab,14-16
7.2	Geometric Sequences	1-4,6-11,14,15
7.4	EXPLORE - Recursive Sequences	A-I
7.5	Arithmetic Series	4-6,7be,11,14-16
7.6	Geometric Series	3-5,6abe,7,8,11,16
8.1	Simple Interest	1ab,2-4,6,8,13
8.2	Future Value - Lump Sum	1-4,6,7,9,14,20

8.3	Present Value - Lump Sum	1,4,5,8-10,13 + p.500#1,2
8.4	Future Value - Annuity	1-4,6-8,10
8.5	Present Value - Annuity	1,4,8-10,12,15
	INVESTIGATE - Financial Problems	
Chapter Review	Chapter Review	
Test		