MATHEMATICS DIVISION July 2011 printing 3rd Edition with MyMathLab

Math Resource Center STUDENT STUDY GUIDE

MTH 65 – ELEMENTARY ALGEBRA

Self-Paced and VARIABLE CREDIT (1, 2, 3, or 4)

I have enrolled for _____ credits of Math 65, computer registration number (CRN)_____.

REQUIRED TEXT with On-Line Access Code:

Introductory and Intermediate Algebra, 3rd Edition, by Robert Blitzer Pearson Prentice Hall Publishing Company + MyMathLab On-Line Access Code

SUPPLEMENTARY RESOURCES:

- 1. Get help from the tutors that are available in the MRC Tutoring Room 163.
- 2. Use the quiet study room if Room 163 is too noisy.
- 3. Check out individual math topic Video Tapes from the Reception Counter staff.
- 4. Refer to the "Student Solutions Manual" if you get stuck.
- 5. Use on-line MyMathLab resource materials.
- 6. Take practice tests before the graded tests. Go to the MRC Reception Counter, Room 169.

OVERVIEW OF COURSE:

Credit	Chapter and Topic	Test covers
1 st credit	Chapter 3.1 – 3.5 - Linear Equations in 2 Variables	Test 1: Ch 3.1 – 3.5
	Chapter 4.1 – 4.4 - Systems of Linear Equations	Test 2: Ch 4.1 – 4.4
2 nd credit	Chapter 5.1 – 5.3, 5.5 – Exponents and Polynomials	Test 3: Ch 5.1 – 5.3, 5.5
	Chapter 5.7, 6.1 – 6.3 – Factoring Polynomials	Test 4: Ch 5.7, 6.1 – 6.3
3 rd credit	Chapter 6.4 – 6.6 – Factoring Polynomials	Test 5: Ch 6.4 – 6.6
	Chapter 7.1 – 7.3 – Rational Expressions	Test 6: Ch 7.1 – 7.3
4 th credit	Chapter 8.1, 8.2, 10.1, 10.3, 10.4, 11.1	Test 7: Ch 8.1-2, 10.1,
	Introduction to Functions, Radicals, the Square Root	10.3, 10.4, 11.1
	Property & Pythagorean Theorem	
	Cumulative Review – Ch. 2, 3, 4, 5, 6, 7, 8.1-2, 10, 11.1	Test 8: Cumulative

NOTE: This course begins with a brief review of material found in the last credit of Math 60. If you lack the basic algebra skills found in Chapters 1 through 3 you should consider enrolling and completing Math 60, Beginning Algebra, before starting this Math 65 course.

CALCULATOR: A scientific calculator is required and useful in this course. However, we encourage you to do most of your numeric work in this course by hand (to reinforce basic skills) THEN use a calculator to check your work. You are to provide your own calculator. Some exams do not allow use of calculators with the intention of helping you to maintain computational skills.

HINTS FOR SUCCESS and HOW TO DO YOUR HOMEWORK:

- 1. Establish a regular daily schedule for doing your math homework and stick with it.
- 2. Try to do your work in the Math Resource Center where tutor help is available when you need it.
- 3. Try to stay on schedule to meet your <u>suggested</u> "On Schedule" test dates.
- 4. Use the tutors and video tapes.
- 5. Follow the Lesson/Homework Assignment guide on the following pages.
- 6. <u>Before starting on the assigned homework</u>, study the text discussion & examples, and work "check point" problems for practice.
- Then, neatly work homework problems on your own paper. Try to <u>do them without looking at examples or a solutions manual</u>. You must show each step of your solution. Then grade yourself. Try to fix your mistakes and then get tutor help or refer to the Student Solutions Manual.
- 8. Finally, take your completed homework assignment and *Study Guide* to a tutor to verify completion and receive their stamp of approval.

HOW TO BE PREPARED & TAKE EXAMS IN THIS COURSE:

- 1. Complete your homework and check it as described above in "Hints for Success."
- 2. After all the assigned work has been checked by a tutor, we suggest you try to work the *Chapter Test* in the text without looking at any solved problems. Grade it and get help if needed. Now you are almost ready to take the graded test.
- 3. With your *tutor stamped Study Guide* go to the Reception Counter and ask for a *Practice Module Test*. Since the only difference between practice and graded tests is that your score on the practice test will not count, taking a practice test gives you a realistic, objective check of your skill level without affecting your grade for the course. Work each question on the test like you did in your homework, showing each step. You are allowed to take more than one practice test, if you so choose. When your practice test score is above 80%, you should be ready to take the graded exam.
- 4. Once you have completed Steps 1, 2, and 3 you are ready to take the *Graded Module Test*. Go to the Reception Counter, show your *Study Guide*, and check in to take the test for a grade. Relax, take your time, show your work, and demonstrate what you have learned. We want you to earn a score of 80% or better before you test on material from the next set of homework assignments.

NOTE:

Homework will receive a date stamp from a tutor only if it is done <u>neatly</u> with <u>step-by-step solutions</u> shown.

All graphing should be done using graph paper.

A PAGE OF ANSWERS WITHOUT WORK SHOWN WILL NOT BE ACCEPTED.

BEST WISHES & GOOD LUCK !!

CREDIT #1: Linear Equations in 2 Variables (review) & Systems of Linear Equations

Student Name: _____

Procedure Quiz Completed: _

(Date stamp by Tutor)

You must show step-by-step solutions (not just a list of answers) to receive credit for your work. Odd = 1,3,5,7,9,etc., Eoo = every other odd: 1,5,9,13,17,21, etc.

LESSON	HOMEWORK	Date Stamp from
Chapter & Section	ASSIGNMENT	tutor when completed
Credit #1, Module A: Chapter 3.1 – 3.5	These review problems	
	illustrate essential skills	
(This is mostly review from Math 60)	you must know.	
	We suggest you work extra	
	problems from sections	
	3.1-3.5.	
Chapter 3, Mid-Chapter Check Point (Before Sec.3.5)	All 1-20	/ /
3.5 The Point-Slope Form of the Equation of a Line (includes the concept of perpendicular lines)	Eoo 1-65	/ /
Chapter 3 Review Exercises (After Ch.3 Summary)	All 1-49	/ /
Practice Test 1: score date:	Take Test #1	"On Schedule" Test
Graded Test 1: score date:	(No Calculator Allowed)	Date:
Credit #1, Module B: Chapter 4.1 – 4.4		
	All graphing must be done	
	on graph paper.	
4.1 Solving Systems of Linear Equations by Graphing	.1,3,9,13,15; Odd 21-47; 51.	
4.2 Solving Systems of Linear Eqns. By Substitution	.3,5; Odd 9-17; 21,23,27,29,	
	35,37,39,41,45,46,60	
4.3 Solving Systems of Linear Eans. By the Addition	Eoo 3-43: 45,47,51,53,55	
Method Answer to even problem 58 : $\{(2,0)\}$	57.58.61: All 81-84	/ /
4.4 Problem Solving Using Systems of Equations	Odd 1-23; 29; Odd 33-47;	
	64	/ /
Chapter 4 Review Exercises (After Ch.4 Summary)	1, 2, 7, 9, 13, 17, 19, 20;	
	Odd 21-51	/ /
Practice Test 2: score date:	Take Test #2	"On Schedule" Test
Graded Test 2: score date:	(Calculator Use OK)	Date:
where	End of Credit #1	

CREDIT #2: Exponents and Polynomials & Factoring Polynomials

You must show step-by-step solutions (not just a list of answers) to receive credit for your work. Odd = 1,3,5,7,9,etc., Eoo = every other odd: 1,5,9,13,17,21, etc.

LESSON Chapter & Section	HOMEWORK	Date Stamp from
Credit #2. Module A: Chanter 51 – 53 55		tutor when completed
Creat #2, 1100uite 11. Chapter 5.1 – 5.5, 5.5		
5.1 Adding and Subtracting Polynomials	Eoo 1-93; 103	/ /
5.2 Multiplying Polynomials	Odd 1-71; 79, 81, 101, 103, 105, 106; Odd 117-123; All 124-126	
	127-120	1 1
5.3 Special Products	Eoo 1-85; 87, 89, 97, 99, 113, 115, 117, 123, 125	/ /
Skip 5.4		
5.5 Dividing Polynomials (Skip examples 4c and 7) Even answers: 100: F. 102: F	Odd 1-73; 91; All 100-103;	/ /
Chapter 5 Review Exercises (After Ch. 5 Summary)	Odd 1-43; Odd 57-67 (omit 65)	/ /
Practice Test 3: score date: Graded Test 3: score date:	Take Test #3 (Calculator Use OK)	"On Schedule" Test Date:
Credit #2, Module B: Chapter 5.7, 6.1 – 6.3		
5.7 Negative Exponents and Scientific Notation	Odd 1-77; Eoo 79-127; Odd 139-151; 155; Odd 163-171; All 176-178	/ /
6.1 The Greatest Common Factor and Factoring By Grouping	Odd 1-41; 49, 51; Odd 57-	
	67; 75, 87, 89, 91, 103,115.	/ /
6.2 Factoring Trinomials Whose Leading Coefficient Is One	Odd 1-61; Odd 71-77; All 87-91	/ /
6.3 Factoring Trinomials Whose Leading Coefficient Is Not One (See tutors for Handout)	Odd 1-41; Odd 59-77; 95, 98, 113, 114, 115	/ /
Chapter 6, Mid-Chapter Check Point (Before Sec.6.4)	All 1-11 (omit 3, 8, 9)	/ /
Chapter 5 Review Exercises (After Ch. 5 Summary)	Odd 77-101	/ /
Practice Test 4: score date:	Take Test #4	"On Schedule" Test
Graded Test 4 : score date:	(No Calculator Allowed) End of Credit #2	Date:

CREDIT #3: Factoring Polynomials (continued) & Rational Expressions

You must show step-by-step solutions (not just a list of answers) to receive credit for your work. Odd = 1,3,5,7,9,etc., Eoo = every other odd: 1,5,9,13,17,21, etc.

LESSON	HOMEWORK	Date Stamp from
Chapter & Section	ASSIGNMENT	Tutor when completed
Credit #3, Module A: Chapter 6.4 – 6.6		
6.4 Factoring Special Forms (Omit sums/differences of	044152.0446260.00	
cubes, examples 7, 8, 9)	93, 95, 99, 101, 105, 126, 127	/ /
6.5 A General Factoring Strategy (Omit examples 6 and		
8)	107; All 131-133	/ /
6.6 Solving Quadratic Equations by Factoring	Odd 1-63; 67, 69, 71, 83, 85, 88, 97, 98, 99; All 113- 115	/ /
Chapter 6 Review (After Chapter 6 Summary)	Odd 27-37; Odd 47-65; 73; Odd 83-95	/ /
Practice Test 5: score date:	Take Test #5	"On Schedule" Test
Graded Test 5: score date:	(No Calculator Allowed)	Date:
Credit #3, Module B: Chapter 7.1 – 7.3		
7.1 Rational Expressions and Their Simplification Even answers: 104: F, 106: T	Odd 1-71 (Omit 51); 85, 87; 104, 105, 106, 117	/ /
7.2 Multiplying and Dividing Rational Expressions Even answers: 84: F, 86: F	Eoo 3-59 (omit 31); 73, 75; All 84-87; 95, 97	/ /
7.3 Adding and Subtracting Rational Expressions with the Same Denominator	Odd 1-61; 67, 73, 75, 79	/ /
Chapter 7 Mid-Chapter Checkpoint (before Section 7.5)	All 1-6; 8, 10, 11, 13	/ /
Practice Test 6: score date:	Take Test #6	"On Schedule" Test
Graded Test 6: score date:	(Calculator Use OK) End of Credit #3	Date:

CREDIT #4: Introduction to Functions, Radicals, the Square Root Property, Pythagorean Theorem & Course Cumulative Review covering Chapters 3, 4, 5, 6, 7, 8.1-2, 10.1-4, 11.1

You must show step-by-step solutions (not just a list of answers) to receive credit for your work. Odd = 1,3,5,7,9,etc., Eoo = every other odd: 1,5,9,13,17,21, etc.

LESSON	HOMEWORK	Date Stamp from
Chapter & Section	ASSIGNMENT	tutor when completed
Credit #4, Module A: Chapter 8.1-2, 10.1-4, 11.1		
8.1 Introduction to Functions	Odd 1-21	/ /
8.2 Graphs of Functions	Odd 1-45;68,69; All 83-85.	/ /
10.1 Radical Expressions and Functions (Omit concepts from examples 3 & 9)	Odd 1-25; 33, 35, 39; Odd 47-85; 103, 133	/ /
Skip 10.2		
10.3 Multiplying and Simplifying Radical Expressions (Omit Example 3)	Odd 1-31; Odd 39-49; Odd 61-75; 98, 120	/ /
10.4 Add, Subtract, and Divide Radical Expressions	Odd 1-19; Odd 29-51; 81, 83; All 101-104	/ /
Theorem (Only Concepts from examples 1, 2, 4 and 9) See tutors for even answers.	All 1-8; All 11-16; Odd 111-119	/ /
Practice Test 7: score date:	Take Test #7	"On Schedule" Test
Graded Test 7: score date:	(Calculator Use OK)	Date:
Credit #4, Module B: Cumulative Review of Chapters 2, 3, 4, 5, 6, 7, 8.1, 8.2, 10, and 11.1		
Chapter 2 Review Exercises (After Ch.2 Summary)	25,26,27,58,59,66,67,68	/ /
Chapter 3 Test (After Ch.3 Review Exercises)	All 1-19	
Chapter 5 Test (After Ch 5 Paviaw Exercises)	$\begin{array}{c} \text{All } 1-10 \ (\text{SKIP } 4, 5, 8, 11) \dots \\ \text{All } 1 \ 11 \cdot 16 \ 17 \cdot \text{All } 20 \ 22 \end{array}$	
Chapter 6 Test (After Ch 6 Review Exercises)	All $1-30$ (skip 9 20 21)	
Chapter 7 Test (After Ch 7 Review Exercises)	All 1-9: 12	
Chapter 8 Test (After Ch.8 Review Exercises)	All 1-10	/ /
Chapter 10 Test (After Ch.10 Review Exercises)	All 6-12 (skip 7. 9. 11)	/ /
Chapter 11 Test (After Ch.11 Review Exercises)	1, 2, 6	/ /
Practice Test 8: score date:	Take Test #8	"On Schedule" Test
Graded Test 8: score date:	(Calculator Use OK)	Date:
	End of Credit #4	

CONGRATULATIONS !!!

You have now completed the 4 credit Math 65 Course.

Most people keep a dictionary around the house for reference.

It might be a good idea for you to also keep your <u>Introductory & Intermediate Algebra</u> book as a reference. Also, if you are continuing on with Math 95 you will be using this same textbook.