

Math 107 Student Study Guide

Here is a list of practice exercises and study materials for the entire semester. Since the graded homework represents only a select subset of the practice exercises, we suggest you do all of them. We also have included reading assignments (to emphasize vocabulary) and chapter reviews (to assess comprehensive mastery). Most of the practice exercises can be found in mathxl, a web based tutorial system. In order to use the system you must first register. Go to http://www.pearsoncustom.com/il/siuc_math

Lesson	Textbook Sections and In-Class Activity	Practice Problems and Additional Readings	
1	1.1-1.4	1.1 1.2 1.3 1.4	17, 33, 35, 47, 61, 65, 71 5, 7, 9, 15, 27, 37, 41, 51, 57, 65, 67, 69 7, 11, 27, 29, 33, 45, 49, 53, 55, 61, 79, 87 1, 3, 23, 31, 37, 39 Depending on arithmetic skills, you may not need to do all of these.
2	2.1/2.2 Solving Linear Equations and Formulas	2.1 2.2	4, 7, 17, 21, 31, 39, 51, 52, 57, 71 11, 15, 17, 19, 21, 23, 25, 27, 29, 31, 35, 39 Additional Reading: Key Terms, New Symbols, & Test Your Word Power, Pages 43 & 44
3	2.3 Application of Linear Equations	2.3	1, 3, 7, 9, 19, 25, 26, 27, 35, 43, 47, 51, 53
4	2.4 More Applications	2.4	3, 6, 7, 13, 21, 22, 27, 35, 37
5	3.1/3.2 Linear Ineq., Compound Ineq.	3.1 3.2	1-6, 7, 11, 13, 19, 25, 29, 39, 45, 53, 57 5, 11, 13, 16, 23, 27, 37, 41, 45, 49, 55
6	4.1/4.2 Points, Lines, & Scopes	4.1 4.2	5-9, 11, 13, 25, 29, 31, 35, 39, 52 1, 3-6, 11, 12, 15, 23-26, 31, 36, 41, 45, 59, 63 Additional Reading: Chap. 2 Review: 4, 15, 25, 29, 33, 41, 46
7	4.3 Linear Equations in 2 Variables	4.3	1, 4, 5, 6, 17, 21, 25, 29, 35, 41, 45, 53, 63, 65
8	4.5 Introduction to Functions	4.5	3, 5, 7, 15, 19, 20, 23, 24, 31, 32, 33, 37, 39, 42 Additional Reading: Key Terms & Test Your Word Power, Pages 239-240 Cumulative Review: Page 249 4, 7, 12, 10, 18, 19, 20, 21, 22, 25, 31, 34, 37, 38
9	4.5 Evaluating Functions	4.5	45, 51, 53, 57, 61, 63, 65, 71
Test 1 Chapters 1-4			

10	6.1 Integer Exponents	6.1	11, 18, 25, 27, 33, 35, 41, 49, 53, 59, 67, 77, 79, 89, 99, 103, 109, 115
11	6.2/6.3 Adding & Subt. Polynomials	6.2 6.3	5, 9, 21, 25, 29, 35, 47, 51, 54 8, 15, 19, 21, 23, 28, 29, 31, 33, 34
12	6.4 Multiplying Polynomials	6.4	7, 9, 11, 25, 33, 34, 43, 45, 47, 53, 55, 57, 59, 61, 65, 69, 81, 83, 84, 85, 87, 90, 91
13	6.5 Dividing Polynomials	6.5	5, 7, 13, 17, 23, 29, 33, 35, 37, 39, 41, 43, 47, 48 Additional Reading: Key Terms and Quick Review, Pages 359-361
14	7.1 GCF/Factoring by Grouping	7.1	3, 5, 8, 19, 25, 29, 31, 33, 37, 39, 43, 49, 53, 57
15	7.2 Factoring Trinomials	7.2	1, 3, 7, 9, 15, 18, 25, 26, 31, 33, 37, 39, 41, 45, 47
16	7.3 Special Factoring	7.3	1, 2, 3, 6, 9, 13, 15, 23, 31, 37, 39, 41 Additional Reading: Key Terms & Test Your Word Power, Page 405
17	7.4 Solving Equations by Factoring	7.4	2, 5, 11, 13, 17, 21, 27, 31, 33, 37, 39, 40, 45, 49
18	Summary of Factoring		Pages 393-394 1, 3, 7, 8, 10, 11, 15, 17, 19, 23, 29, 37, 40, 51, 53 Additional Reading: Quick Review, Pages 405-406
19	8.1 Intro to Rational Expr. & Function	8.1	7, 8, 11, 15, 17, 21, 22, 23, 29, 31, 35, 40, 45 Review for Midterm Pages 411-412 6, 7, 9, 10, 11, 12, 18-24, 27-40
Midterm Exam—Chapters 1–7			
20	8.1 Mult./Div of Rational Expressions	8.1	49, 51, 53, 57, 61, 67, 69, 73, 79
21	8.2 Finding LCD	8.2	5, 9, 13, 15, 19, 25, 29, 31, 32, 33, 35, 41
22	8.2 Adding Rational Expressions	8.2	37, 45, 52, 55, 59, 60, 64
23	8.3 Complex Fractions	8.3	2, 6, 9, 13, 15, 19, 20, 27
24	8.4 Equations with Rational Expressions	8.4	1, 3, 13, 15, 23, 31, 33, 35, 39, 41, 42, 44
25	8.5 Applications of Rational Expressions	8.5	1, 3, 5, 7, 11, 15, 19, 25, 39, 41, 43, 49, 51 Additional Reading: Test Your Word Power Key Terms and Quick Review, Pages 465-468

26	9.1 Radicals and Graphs	9.1	1-6, 9-11, 17, 25, 31, 33, 37, 38, 39, 41, 45, 49 Chapter 8 Review 2, 5, 6, 9, 11, 16, 19, 22, 23, 26, 28, 29, 32, 34, 35
27	9.2 Rational Exponents	9.2	2-6, 25, 27, 29, 35, 41, 45, 53, 55, 63, 69, 73, 81, 85, 91, 99
28	9.3 Simplifying Radical Expressions	9.3	5, 11, 17, 25, 29, 33, 37, 39, 40, 43, 47, 51, 53, 59, 61, 65, 75, 79, 83, 91
29	9.4 Adding & Subtracting Radical Expressions	9.4	2, 4, 5, 7, 9, 13, 21, 27, 37, 39, 42, 51, 54
30	9.5 Multiplying & Dividing Radical Expressions	9.5	1-6, 9, 11, 13, 21, 23, 25, 29, 37, 39, 43, 45, 47, 53, 61, 65, 71, 77, 78
31	9.6 Equations with Radicals	9.6	1, 3, 13, 19, 27, 29, 35, 39, 63, 65, 67 Additional Reading: Test Your Word Power & Quick Review, Pages 546-548
	Review for Test 3-Cumulative Review: Page 556, Problems 20-40		
<i>Test 3-Chapters 8 and 9</i>			
32	10.1 Square Root Property; Completing the Square	10.1	1, 4, 5, 9, 13, 15, 19, 23, 25, 26, 29, 31, 33, 37, 39, 41
33	10.2 The Quadratic Formula	10.2	1, 2, 3, 7, 13, 15, 17
34	10.3 Graphs of Quadratic Functions	10.3	1-6, 9, 11, 17, 19, 21, 25, 27, 29, 37, 39, 41 Cumulative Review: Pages 647-650 9, 11, 13, 16, 22, 23, 25, 27, 29, 31, 32, 34, 35-40
35	Summary of Quadratic Equations		Pages 589-590 8, 9, 10, 11, 15, 16, 17, 18
36	10.4 More Quadratic Applications	10.4	1, 2, 3, 9, 11, 13, 17, 19, 21, 23, 25, 27, 29
37	10.5 Graphs of Quadratic Functions	10.5	1, 2, 3, 5, 9, 11, 17, 19, 21, 23, 25, 29 Additional Reading: Test Your Word Power and Quick Review, Pages 633-635