

Math 109 TR
Pre-Calculus Algebra

Text: *Precalculus: Functions & Graphs*, 3rd edition, Dugopolski, Pearson, 2009

Prerequisites: One of: Math 105 with a grade of C or better; Math ACT of 25 or above; or Placement by the Mathematics Department. **A Graphing calculator is required.** A TI-83, TI-86, TI-89, or TI-92 is strongly recommended.

This is NOT a beginning algebra course. Students are expected to be knowledgeable in basic algebra skills and concepts. The text includes many, many opportunities for learning. Each chapter begins with a recommended review and ends with a concise review of concepts covered. Numerous examples are completely worked out in the text and on-line help is available at internet web sites.

Lesson	Section and Topic	Assignment
1	1.1 Equations in One Variable	p. 9: 4,35,38,39,45,46,53,62,63,68,71,75,82,89,91,92,97,98,99,100,103
2	1.2 Constructing Models	p. 20: 5,7,9,12,14,15,16,20,23,24,25,31,35,45,46,47,49,50,51,52,67
3	1.3 Equations & Graphs	p. 34: 15,18,21,22,27,31,35,38,43,44,47,48,50,54,56,63,65,71,77,85,90,92,93,94
4	1.4 Linear Equations	p. 48: 3,7,9,20,24,32,35,39,44,75,76,77,78,85,89,90,95
	1.5 Scatter Diagrams & Curve Fitting	p. 55: 1,3,5,16,19,20,23
5	1.6 Complex Numbers	p. 63: 3,5,14,17,23,43,45,48,53,55,61,64,65,66,67,75,77,81,83
	1.7 Quadratic Equations	p. 76: 3,4,10,13,18,19,50,53,57,61,64,65,70,74,84,85,91,92,95,96,98
6	1.7 cont.	p. 78: 102,103,104,105,106,110,116
	1.8 Linear & Absolute Value Inequalities	p. 90: 11,13,16,18,22,24,25,28,30,32,33,34,35,37,39,40,42,44,45,47,51,52,56,60,65,85,87,88,91,107,108
7	Review for Test 1	
	2.1 Functions	p. 113: 2,5,8,10,18,19,21,23,25,29,31,35,37,41,42,43,45,50,51,54,56,57,61,66,68,69,71,72,75,76,93,95
8	TEST 1	
9	2.1 Cont.	p. 115: 79,83,84,86,90,91,96,97,98
	2.2 Graphs of Relations & Functions	p. 126: 11,13,27,33,37,49,50,62,64,65,68,69,75,79,81,82,85,91,92
10	2.3 Families of Functions, Transformations & Symmetry	p. 143: 2,4,9,12,27,29,30,32,54,55,64,65,69,79,80,83,86,88,92,94,96,97,99
11	2.4 Operations with Functions	p. 153: 2,5,8,9,15,22,25,28,30,31,37,45,49,50,53,54,62,65,66,76,77,80,81,97,103,104,107,109
12	2.5 Inverse Functions	p. 167: 1,3,6,10,11,12,15,18,20,26,28,31,34,35,38,39,43,47,52,57,58,61,79,80,83,84,86,88,89,91,94
13	2.6 Variation	p. 176: 2,3,4,5,6,8,10,11,13,17,18,21,23,27,30,32,35,38,40,49,51,53,54,59,65
14	Review for Test 2	
	4.1 Exponential Functions	p. 288: 14,17,26,28,32,34,36,38,41,42,46,51,54,56,58,60,61,66,70,74,76,80,82,84,85,88,90,93,95,99,100
15	TEST 2	
16	4.1 Cont.	P. 289: 103,104,105,110
	4.2 Logarithmic Function	p. 300: 2,5,8,10,13,16,27,33,35,36,43,44,45,46,47,48,74,75,79,81,82,89,95,100,102,103,105,106,107,108
17	4.2 Cont.	p. 302: 111,113,121,122,125,131,134,135
	4.3 Rules of Logarithms	p. 314: 1,3,7,13,14,17,18,19,21,40,41,42,52,53,58,61,62,64,74,77,80,89,90,91,96,97,98,100,101
18	4.4 More Equations and Applications	p. 326: 3,4,5,17,19,22,29,33,43,44,46,47,54,55,57,60,61,65,66,67,70,73,74,79,80,81,89,91
19	Review for Test 3	
	3.1 Quadratic Functions and Inequalities	p. 76: 25,27,29; p. 196: 3,4,5,7,8,10,19,25,28,35,38,41,42,48,49,52,62,65,70,72,75,78,81,85,86,90,97
20	TEST 3	

Lesson	Section and Topic	Assignment
21	3.2 Zeros of Polynomial	p. 210: 3,5,32,34,35,37,43,47,49,52,53,54,61,62,63,69,70,77,79,81,82
	3.3 Theory of Equations	p. 220: 3,5,6,8,11,15,24,25,27,29,33,34,79,80,82
22	3.4 Miscellaneous Equations	p. 232: 5,9,12,16,21,22,28,30,31,36,37,38,39,42,51,52,61,65,68,78,79,87,94,95,96
23	3.5 Graphs of Polynomials	p. 246: 7,9,10,13,15,18,25,32,33,34,37,40,42,44,46,48,50,51,52,66,68,79,80,81,83,86,88,90,95,98,99,107,114
24	3.6 Rational Functions and Inequalities	p. 262: 3,8,9,16,20,23,24,27,37,43,51,52,53,54,55,56,78,79,82,83,89,92,97,101,102,103,106,107,108,116, 117,118,122
25	Review for Test 4	
26	TEST 4	
27	Review for Final	

Emergency Evacuation Procedure: A map of this floor is posted near the elevator marking the evacuation route and the **Designated Rescue Area**. This is an area where emergency service personnel will go first to look for individuals who need assistance in exiting the building. Students who may need assistance should identify themselves to the teaching faculty.

Last updated 18 August 2008.