

**MATH 104 – Thinking Mathematically**

**Thinking mathematically; Blitzer:6th Edition; Pearson**

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Calculator: A graphing calculator is required. The TI-84 is highly recommended.

Note: Each lesson below, corresponds to a Two-hour class.

Lesson		Sect.	Topic	Page
1	Number Theory and the Real Number System	5.1	Prime & composite numbers	P. 256; 25-37 Odds
2		5.2	The integers; order of operations	P.269;7,13, 15, 27, 29, 39, 45, 49, 59, 61. 65, 69,75,79,83,89,91,93,99,107,109,117,119,121
3		5.3, 5.4	Rational and irrational numbers	P.285;7,9,13,17,29.35.43.47.51.55.69,79,91,97,115,121 P.296;9,11,17,25,35, 47,57,67,69
4		5.5	Real numbers and their properties; clock numbers	P.308;7,9,11,13,15,17,19,21,25,27, 47,49,5153,55,57
5		5.6	Exponents and Scientific Notation	P.319; 1-31 Odds, 35,37,39,41,43,45,47,49,51,53,59,63,67,71,73,79,81,85,87,91, 93,97101107,109
6		5.7	Arithmetic and geometric sequences	P.329; 3,7,11,15,19,23,27,31,37,41,47,51,59,71,75,81
7	Algebra: Equations and Inequalities	6.1	Algebraic expressions and formulas	P.347; 1-25 Odds, 35,37,39,43-61 Odds, 69,71
8		6.2	Linear equations in one variable; proportions	P.362; 1,3,5,7,11,17,19,21,27,31,35,39,43,47,51,57,63,69,71,73,79,81,85,87,91,92
9		6.3	Applications of linear equations	P.373; 1-15 Odds, 21, 25, 31, 45, 51
10		6.4	Linear inequalities in one variable	P.384; 3, 7, 9, 25, 41, 53, 55, 57, 63, 65
11		6.5	Quadratic equations	P.399; 3, 5, 9, 11, 21, 25, 33, 35, 37, 41, 43, 47, 51, 53, 55, 67, 69
12	Review Exam 1			P.401-406
13	<b>EXAM 1</b>			
14	Algebra: Graphs, Functions, and Linear Systems	7.1	Graphing and functions	P.418; 1, 5, 9, 13, 17, 21, 27, 35, 39, 43, 49, 51, 55, 57
15		7.2	Linear functions and their graphs	P.430; 1, 3, 5, 7, 11, 15, 19, 21, 25, 29, 31, 33, 37, 39, 43, 47
16		7.3	Systems of linear equations in two variables	P.444; 1, 3, 5, 9, 13, 17, 27, 31, 33, 39, 43
17		7.4	Linear inequalities in two variables	P.454; 5, 7, 9, 13, 15, 19
18		7.5	Linear programming	P.460; 1, 3, 5, 7, 13, 15, 17
19	Personal Finance	8.1	Percent, sales tax, and discounts	P.495; 1, 3, 5, 11, 13, 15, 21, 25, 29, 31, 35, 37, 39, 41, 47, 49, 51
20		8.2	Income tax	P.506; 1, 3, 5, 7, 9, 11, 13, 17
21		8.3	Simple interest	P.512; 1-19 Odds
22		8.4	Compound interest	P.520; 13-25 Odds, 29, 33
23		8.6	Cars	P.546; 1, 5, 7, 11, 13, 15 Neither in Math 020, nor 102
24		8.7	The cost of home ownership	P.555; 1-11 Odds
25	Review Exam 2			P.569-574

26	<b>EXAM 2</b>			
27	Measurement	<b>9.1</b>	Measuring length; the metric system	<b>P.584;</b> 1-15 Odds, 17, 21, 25, 29, 35, 41, 45, 47
28		<b>9.2</b>	Measuring area and volume	<b>P.593;</b> 1, 3, 5, 11, 13, 15, 19, 25, 31, 33, 35, 49,51
29		<b>9.3</b>	Measuring weight and temperature	<b>P.602;</b> 1,, 3, 7, 11, 19, 27, 33, 37, 41, 47
30	Geometry	<b>10.1</b>	Points, lines, and angles	<b>P.616;</b> 1, 3, 5, 9, 11, 13, 15, 19
31		<b>10.2</b>	Triangles	<b>P.626;</b> 1, 3, 5, 7, 11, 15, 21, 25
32		<b>10.3</b>	Polygons, perimeter, and tessellations	<b>P.636;</b> 1, 3, 5, 9, 11, 17, 21, 25, 29, 31, 33, 35, 37
33		<b>10.4</b>	Area and circumference	<b>P.646;</b> 1, 3, 5, 7, 11, 15, 19
34		<b>10.5</b>	Volume and surface area	<b>P.656;</b> 1, 5, 9, 13, 17, 21
35		<b>10.6</b>	Right-triangle geometry	<b>P.665;</b> 1, 3, 5, 19, 21, 23, 25
36	Review Exam 3		Beyond Euclidean geometry	<b>P.678-685</b>
37	<b>EXAM 3</b>			

38-41	<b>ONLY One of three Options below</b>			
Opt.1	Voting and Apportionment			
38		<b>13.1</b>	Voting methods	<b>P.849;</b> 1, 3, 7, 9, 11
39		<b>13.2</b>	Flaws of voting methods	<b>P.860;</b> 1, 3, 5, 7, 11, 15
40		<b>13.3</b>	Apportionment methods	<b>P.874;</b> 1, 5, 9, 11, 15
41		<b>13.4</b>	Flaws of apportionment methods	<b>P.885;</b> 1, 3, 5, 9, 11
Opt.2	Statistics			
38		<b>12.1</b>	Sampling frequency, distributions, and graphs	<b>P.776;</b> 1, 3, 5, 7, 17, 25
39		<b>12.2</b>	Measures of central tendency	<b>P.791;</b> 1, 3, 7, 13, 15, 25, 29, 37, 41, 43
40		<b>12.3</b>	Measures of dispersion	<b>P.800;</b> 3, 5, 7, 11, 19, 25, 27
41		<b>12.4, 12.5</b>	The normal distribution	<b>P.813;</b> 3, 5, 9, 11, 15, 19, 27, 39, 51, <b>P.820;</b> 3, 7, 11, 13
Opt.3	Counting Methods and Probability			
38		<b>11.1, 11.2</b>	Fundamental counting principle; permutations	<b>P692;</b> 1, 3, 7, 11, 13, 15, 19 <b>700;</b> 3, 5, 9, 13, 19, 25, 31, 47, 49
39		<b>11.3, 11.4</b>	Combinations, fundamentals of probability	<b>P.707;</b> 5, 11, 13, 15, 17, 37, 41 <b>P.715;</b> 7, 9, 11, 15, 19, 23, 25, 27, 31
40		<b>11.5</b>	Probability with the fundamental counting principle	<b>P.723;</b> 3, 5, 9, 11, 15, 17
41		<b>11.6, 11.7</b>	Events, odds, and conditional probability	<b>P.734;</b> 11, 13, 15, 19, 21, 25, 27, 31, 35, 37 <b>P.746;</b> 1-9 Odds, 13, 15, 19, 23, 27, 31, 33, 49, 53

42	Review Final			
	<b>Final</b>			