

Middlesex Community College  
MA 1133 - Elements of Mathematics II

**ASSIGNMENTS**

**Required Text:** A Problem Solving Approach to Mathematics For Elementary School Teachers, 9<sup>th</sup> Edition, by Billstein, Libeskind, and Lott, Addison Wesley Higher Education, 2007 ISBN: 0-321-33179-6

**Required Lab Manual:** Mathematics Activities for Elementary School Teachers A Problem Solving Approach, 6<sup>th</sup> Edition, by Dolan, Williamson, and Muri, Addison Wesley Higher Education, 2007 ISBN: 0-321-40898-5

For every section covered,

1. For each problem number assigned do **ALL** of the parts that are indicated in *BLUE TEXT* in addition to those noted below
2. Do out the problems on each Sample School Book Page
3. **DO ALL** Third International Mathematics and Science Study (TIMSS) questions
4. **Answer All Questions from the Classroom** – found at the end of each chapter

**Note: Changes to Assignment sheet to reflect Science integration are made in red.**

<b>SECTION</b> <b>N</b>	<b>TOPIC</b>	<b>PAGES</b> <b>TO</b> <b>READ</b>	<b>ASSIGNED</b> <b>PROBLEMS</b>	<b>LAB MANUAL</b>
7.1	How Probabilities are determined	431 – 443	2, 3, 4, 5, 6, 7, 8, 10, 12, 14, 15, 18, 20, 22, 23, 24	Read page 141 Activity 7–3 Pages 145 - 146
	Genetics		Fast Plants and Alien Lab	
7.2	Multistage Experiments with Tree Diagrams and Geometric Probabilities	448 – 461	1, 2, 3, 4, 6, 7, 11, 12, 13, 14, 15, 16, 18, 22, 24, 27, 30, 31, 33, 39, 46, 47	Activity 7–6 Pages 150 - 152
7.3	Using Simulations in Probability	467 – 472	1, 2, 3, 5, 6, 8, 9, 13, 17, 21, 22	
7.4	Odds, Conditional Probability, and Expected Value	475 – 482	1, 3, 4, 5, 6, 7, 9, 11, 13, 14, 15, 17, 18, 20, 23, 24, 32	Activity 7–8 Pages 155 - 156
7.5	Using Permutations and Combinations in Probability	484 – 493	1, 2, 6, 7, 8, 9, 11, 12, 13, 15, 18, 19, 21, 23, 24, 25, 26, 27, 29, 30, 31, 33, 34, 37, 39,	Activity 7–11 Pages 161 – 164

Middlesex Community College  
 MA 1133 - Elements of Mathematics II  
**ASSIGNMENTS**

<b>SECTION</b> <b>N</b>	<b>TOPIC</b>	<b>PAGES</b> <b>TO</b> <b>READ</b>	<b>ASSIGNED</b> <b>PROBLEMS</b>	<b>LAB MANUAL</b>
<b>Exam 1</b>				
9.1	Basic Notations	570 - 584	1, 2, 4, 5, 7, 9, 10, 11, 12, 13, 16, 19, 20, 21, 25	Read 199 – 200 Activity 9-1 Pages 201 - 202
9.2	Polygons	589 - 597	1, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 15, 18, 20	Activity 9-2 Pages 203 - 205
9.3	More About Angles	600 - 609	1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 28, 30, 32, 34, 40, 43	Activity 9-3 Activity 9-4 Activity 9-5 Pages 206- 211
9.4	Geometry in Three Dimensions	614 - 622	1, 2, 4, 5, 6, 9, 10, 11, 13, 14, 17, 18, 20, 23, 24, 26, 31, 36, 37, 38, 39	Activity 9-8 Pages 215-217
9.5	Networks	628 -633	1, 3, 6, 8, 9, 12,	
	Chapter Review	638 - 641		Chapter Summary pages 223 – 224
10.4	Similar Triangles and Similar Figures	681 – 690	1, 2, 4, 5, 6, 8, 9, 11, 14, 16, 21, 23, 24, 25, 27, 31, 35, 37	Activity 10-4 Activity 10-5 Pages 234 - 236
11.1	Linear Measure	737 - 746	1, 2, 3, 4, 5, 6, 8, 9, 11, 12, 13, 15, 17, 19, 20, 22, 23, 24, 25, 26, 28, 29, 31, 39, 42, 43	Read page 246 Activity 11 – 2 Pages 249 - 252

**Exam 2**

Middlesex Community College  
 MA 1133 - Elements of Mathematics II  
**ASSIGNMENTS**

<b>SECTION</b> <b>N</b>	<b>TOPIC</b>	<b>PAGES</b> <b>TO</b> <b>READ</b>	<b>ASSIGNED</b> <b>PROBLEMS</b>	<b>LAB MANUAL</b>
11.2	Areas of Polygons and Circles	750 - 763	2, 4, 5, 6, 7, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 26, 29, 30, 31, 32, 33, 35, 36, 37, 39, 42, 44, 46, 47, 53	Activity 11-4 Activity 11 -6 Activity 11-7 Activity 11-8 Activity 11-9 Pages 256 - 266
	Areas of Irregular Shapes (leaves) <ul style="list-style-type: none"> <li>• Lattice Polygons</li> <li>• Pick's Theorem</li> <li>• Normal Curve</li> </ul>		Lab Report	
11.3	The Pythagorean Theorem and the Distance Formula	770 - 780	2, 3, 5, 7, 9, 11, 13, 15, 16, 17, 18, 19, 20, 21, 23, 25, 26, 27, 29, 30, 31, 34, 36, 37, 39, 40, 44, 48, 51, 53, 54	Activity 11-11 Pages 268 - 269
11.4	Surface Areas	786 - 792	1, 3, 5, 6, 8, 10, 11, 12, 13, 14, 16, 17, 18, 19, 21, 25, 26, 29, 33, 38, 39,	Activity 11-13 Pages 272 - 274
11.5	Volume, Mass, and Temperature	798 – 816	1, 2, 4, 5, 7, 8, 10, 11, 12, 14, 15, 16, 17, 22, 24, 27, 31, 32, 35, 37, 39, 42, 43, 44, 45, 46, 47, 48, 54, 55, 57, 64, 65, 66	Activity 11-14 Activity 11-15 Activity 11-16 Pages 275 - 282
	Does Cell Size Count		Lab	
	Chapter Review	822 - 826		Chapter Summary Pages 283 – 285
12.1	Motion Geometry and Tessellations	829 - 838	1,2, 4, 5, 6, 7, 9, 14, 17, 18, 21, 22, 24, 25, 26, 30, 34,	Activity 12–1 Activity 12–2 Pages 286 - 291
12.2	Reflections and Glide	845 - 854	4, 7, 9, 10, 11, 13,	Activity 12-3

Middlesex Community College  
 MA 1133 - Elements of Mathematics II  
**ASSIGNMENTS**

<b>SECTION</b> <b>N</b>	<b>TOPIC</b>	<b>PAGES</b> <b>TO</b> <b>READ</b>	<b>ASSIGNED</b> <b>PROBLEMS</b>	<b>LAB MANUAL</b>
	Reflections		14, 15, 25, 30, 34, 54, 57, 62, 63, 65 b, c	Pages 292 - 293 Activity 12-8 Pages 304 - 306
12.3	Size Transformations	858 - 864	1, 2, 4, 6, 10, 11, 13, 15,	Activity 12-9 Activity 12-10 Page 306 – 310
12.4	Symmetries	868 - 878	1, 2, 4, 5, 6, 7, 10, 11, 12, read #19	
	Chapter Review	887 - 891		Chapter Summary Pages 319 - 320

**Exam 3**

3.1	Numeration Systems	153 – 166	7, 10, 11, 14, 17, 19, 22, 23, 24, 27, 32, 33	Read Page 43 Activity 3-2 Pages 47-48
4.1	Integers and the Operations of Addition and Subtraction	215 – 227	1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 21, 22, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 35, 36, 37, 40	Read pages 64 - 65 Activity 4-1 Activity 4-3 Activity 4-4 Activity 4-5 Pages 66 - 73
4.2	Multiplication and Division of Integers	231 - 241	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 33, 35, 38, 40, 41, 44, 46	Activity 4-7 Page 76
4.3	Divisibility	246 - 255	1, 2, 3, 4, 5, 6, 7, 8, 9, 13, 14, 16, 18, 19, 21, 22, 23, 24, 25, 27, 33, 35, 42, 44 – 47	
4.4	Prime and Composite	259 - 269	1, 2, 3, 4, 5, 6, 7,	Activity 4-8

Middlesex Community College  
 MA 1133 - Elements of Mathematics II  
**ASSIGNMENTS**

<b>SECTION</b>	<b>TOPIC</b>	<b>PAGES TO READ</b>	<b>ASSIGNED PROBLEMS</b>	<b>LAB MANUAL</b>
	Numbers		8, 9, 10, 11, 13, 14, 15, 17, 18, 19, 24, 25, 31, 32, 33, 40, 43, 45 - 48	Activity 4-9 Pages 77 – 82 Activity 4-11 Page 87
4.5	Greatest Common Divisor and Least Common Multiple	273 - 281	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 16, 17, 18, 19, 20, 21, 23, 28, 29, 30, 31, 33, 34, 38,	Activity 4-13 Activity 4-14 Pages 90 - 92
	Chapter Review	293 - 295		Chapter Summary Pages 93 - 94
5.1	The Set of Rational Numbers	299 – 309	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 19, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34, 35, 39, 42	Read Page 95 Activity 5-1 Activity 5-2 Pages 96 – 99 Activity 5-5 Page 102
5.2	Addition and Subtraction of Rational Numbers	314-325	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 17, 19, 21, 23, 24, 25, 26, 27, 29, 32, 34, 36, 42, 43, 44	Activity 5-7 Pages 106 - 108
5.3	Multiplication and Division of Rational Numbers	329 – 342	1, 2, 3, 4, 5, 6, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 27, 28, 30, 31, 32, 36, 37, 38, 39, 40, 41, 44, 53, 54	Activity 5-8 Activity 5-9 Activity 5-10 Pages 109 – 114
5.4	Proportional Reasoning	346 – 354	1, 2, 3, 4, 5, 6, 7, 9, 11, 13, 14, 16, 17, 19, 21, 22, 23, 25, 27, 31, 34, 44 - 48	Activity 5-11 Page 115 – 117
	Chapter Review	359 - 362		Chapter Summary Pages 119 - 120

Middlesex Community College  
 MA 1133 - Elements of Mathematics II  
**ASSIGNMENTS**

<b>SECTION</b> <b>N</b>	<b>TOPIC</b>	<b>PAGES</b> <b>TO</b> <b>READ</b>	<b>ASSIGNED</b> <b>PROBLEMS</b>	<b>LAB MANUAL</b>
<b>Exam 4</b>				
6.1	Introduction to Decimals	365 – 372	1, 2, 3, 4, 5, 6, 8, 9, 11, 12, 14, 15, 16, 17, 18, 21, 24, 27, 30,	Read Pages 121 – 122 Activity 6-1 Activity 6-2 Pages 123 - 125
6.2	Operations on Decimals	374 – 384	1, 2, 3, 4, 6, 7, 8, 9, 11, 14, 15, 16, 17, 18, 19, 22, 23, 25, 27, 31, 33, 34, 43 – 46	Activity 6-7 Page 131
6.3	Nonterminating Decimals	389 – 396	1, 2, 4, 5, 8, 9, 10, 11, 12, 15, 16, 17, 19, 20, 21, 22, 24, 30 – 33	
6.4	Real Numbers	398 – 404	2, 3, 4, 5, 6, 9, 10, 14, 15, 16, 17, 18, 19, 20, 22, 23, 25, 27, 31, 32, 44 – 49	
6.5	Percents	407 – 416	1, 2, 3, 5, 6, 7, 9, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 25, 27, 29, 31, 33, 36, 37, 38, 39, 41, 42, 45, 55 - 59	Activity 6-10 Activity 6-11 Pages 135 – 138
	Chapter Review	428 - 430		Chapter Summary Page 140

**Final Skills Exam**