



MAINE
Mathematics
Middle Grades 5-8 and Secondary Grades
Algebra 1 © 2003

OBJECTIVES	PAGE REFERENCES
H. ALGEBRA CONCEPTS	
Students will understand and apply algebraic concepts. Students will be able to:	
MIDDLE GRADES 5-8	
1. Use the concepts of variables and expressions.	SE: 6-9, 15 #51-55 & 60-63, 25 #56, 120-126, 130 Ex 6, 136 Ex 4 & 7, 142-147, 160-164, 166-170 <i>Reading Mathematics 10</i>
2. Solve linear equations using concrete, informal, and formal methods which apply the order of operations.	SE: 128-134, 135-140, 142-147, 149-154, 155-159, 160-164, 171-177 <i>Algebra Activity 127, 141</i> <i>Graphing Calculator 148</i>
3. Analyze tables and graphs to identify properties and relationships in a practical context.	SE: 24 #32-36, 30 #39-41, 35 #49-55, 71 #42-44, 72 #63-65, 78 #70-71 <i>Spreadsheet Investigation 56</i> TWE: DI 52 UM 51
4. Use graphs to represent two-variable equations.	SE: 192-196, 218-223, 226-231, 256-262, 264-270, 272-277 <i>Algebra Activity 271</i> <i>Graphing Calculator Activity 224-225, 265, 278-279</i>
5. Demonstrate an understanding of inequalities and non-linear equations.	SE: 318-323, 325-331, 332-337, 339-344, 352-357, 524-530 <i>Algebra Activity 324</i> <i>Graphing Calculator Activity 333, 358, 531-532</i>
6. Find solutions for unknown quantities in linear equations and in simple equations and inequalities.	SE: 128-134, 135-140, 142-148, 149-154, 318-323, 325-331, 332-337 <i>Algebra Activity 127, 324</i> <i>Graphing Calculator Activity 333</i>
SECONDARY GRADES	
1. Use tables, graphs, and spreadsheets to interpret expressions, equations, and inequalities.	SE: 43-48, 50-55, 72 #63-65, 83 #66, 88-94 <i>Algebra Activity 49</i> <i>Reading Mathematics 95</i> <i>Spreadsheet Investigation 56, 232, 368</i>
2. Investigate concepts of variation by using equations, graphs, and data collection.	SE: 264-270, 642-647 <i>Algebra Activity 271</i> <i>Graphing Calculator Activity 265</i> TWE: DI 266, 644 OEA 270, 647

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3. Formulate and solve equations and inequalities.	SE: 128-134, 135-140, 142-148, 149-154, 318-323, 325-331, 332-337 <i>Algebra Activity</i> 127, 324 <i>Graphing Calculator Activity</i> 333
4. Analyze and explain situations using symbolic representations.	SE: 6-9, 50-55, 120-126, 131 Ex 6, 136 Ex 6, 144 Ex 6, 171-177, 233-238 <i>Algebra Activity</i> 122 <i>Reading Mathematics</i> 10

Codes Used for TWE Pages

DI Differentiated Instruction
OEA Open-Ended Assessment
UM Unlocking Misconceptions