

GRADE: _____

VENDOR: CORD Communications, Inc.

INSTRUCTIONAL MATERIALS: CORD Algebra 1, 2nd Edition

SUBJECT: Algebra 1

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**MATHEMATICS
 SPECIFIC CRITERIA FOR CONTENT AND SKILLS
 ALGEBRA I**

Algebra I is a course that provides the gateway to all higher mathematics courses. This course uses a conceptual approach to mathematics and does not focus on algorithmic methods. Algebraic representations will be used to generalize, and the algebraic method will be viewed as a problem-solving tool. In planning for instruction, consideration should be given to the student’s readiness for abstract concepts. Manipulatives, such as algebra blocks, should be used to bridge the gap from the concrete to the abstract. Available technology such as calculators, computers, and graphing utilities are to be used as tools to enhance learning. West Virginia teachers are responsible for analyzing the benefits of technology for learning and for integrating technology appropriately in the students’ learning environment. See the related grade-level Technology Standards and Objectives.

The evaluation of all mathematics materials is based on separate criteria for three (3) categories:

- **Category I: Standards Based Components**
- **Category II: Technology and Manipulatives**
- **Category III: Mathematics Content**

In order to be approved and listed on the West Virginia Multiple List for Mathematics Materials, each category must be evaluated separately.

- **Category I: Standards Based Components must meet 80% (4/5) of the criteria at “In-depth” and/or “Adequate.”**
- **Category II: Technology and Manipulatives must also meet 80% (7/8) of the criteria at “In-depth” and/or “Adequate.”**
- **Category III: Mathematics Content must meet 80% of the criteria at “In-depth” and/or “Adequate” for each grade level or course.**

(Vendor/Publisher) SPECIFIC LOCATION OF CONTENT WITHIN PRODUCT	(IMR Committee) Responses							
	<i>I = In-depth</i>	<i>A = Adequate</i>	<i>M = Minimal</i>	<i>N = Nonexistent</i>		I	A	M

All materials at this grade level (1) be research based and theory driven; (2) incorporate basic, accurate information that is developmentally appropriate; (3) use interactive activities that actively engage students; (4) provide students with opportunities to model and practice relevant skills; (5) develop higher order thinking opportunities; and (6) be based on national standards. The instructional materials should provide students with opportunities to

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Pages 80-84, 85-86, 142, 176-177, 287-290	1.	simplify and evaluate algebraic expressions using grouping symbols and order of operations (A1.2.1)	___	___	___	___	___	___	___
Pages 146-154, 157-158, 161-168, 169-174, 175-179, 230, 241, 242, 502, 508, 509, 560, 635, 636, 640, 641, 645, 647, 649, 683, 684	2.	justify algebraic steps using real number properties (A1.2.1)	___	___	___	___	___	___	___
Pages 169-174, 175-180. Also, see features “Practice and Problem Solving” and “Mixed Review” exercises at end of each lesson; and “Math Applications” exercises at end of each chapter.	3.	solve multi-step linear equations in one variable (A1.2.2)	___	___	___	___	___	___	___
Pages 496-500, 501-505, 506-511, 512-518, 519-522	4.	solve multi-step linear inequalities in one variable and interpret the results on a number line (A1.2.3)	___	___	___	___	___	___	___
Pages 146-154, 161-168, 174, 184, 185-186, 186-188, 190-201, 361, 475, 573-574, 698, 708, 720	5.	solve formulas or literal equations for a given variable (A1.2.4)	___	___	___	___	___	___	___

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Pages 85-92, 93-96, 97-102, 103-106, 107-113, 128-143, 146-154, 155-160, 161-168, 169-174, 175-179, 190-202, 496-500, 501-505, 506-511, 512-518, 544-555	6.	solve practical problems using linear equations, inequalities, and formulas (A1.2.2, A1.2.3, A1.2.4)	___	___	___	___	___	___	___
Pages 225, 241-248, 274, 280-286, 292, 293, 297, 301, 312, 314, 315, 318, 328-333, 338, 404-410, 432, 437, 448, 469, 511, 662-663, 667, 677	7.	analyze a given set of data for the existence of a pattern numerically, algebraically and graphically; determine if a relation is a function, and determine its domain and range (A1.2.5)	___	___	___	___	___	___	___
Pages 180-184	8.	solve absolute value equations in one variable and interpret the results on a number line (A1.2.6)	___	___	___	___	___	___	___
Pages 37-43, 47, 60, 76, 84, 96, 160, 174, 240, 570-574, 575-580, 616, 637	9.	use the laws of exponents to perform operations on expressions with integral exponents (A1.2.7)	___	___	___	___	___	___	___
Pages 218-224, 225-233, 234-240, 242-248, 249-254, 265-277, 282, 286, 292, 303, 311, 319, 327, 373, 403, 410, 414, 442, 462, 500, 511, 523, 527, 529, 531, 625, 632, 687	10.	determine the slope of a line given <ul style="list-style-type: none"> • an equation of a line • the graph of a line and two points (A1.2.8) 	___	___	___	___	___	___	___

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Pages 213-217, 218, 225-233, 247, 249-254, 282, 442-448, 523-531	11.	Graph linear equations using				___	___	___	___
		<ul style="list-style-type: none"> • slope-intercept • point slope • x- and y- intercepts (A1.2.9) 							
Pages 234-240, 241-248, 249-254, 258, 265-277, 282, 319, 410, 442-448, 475, 523-531, 687	12.	write an equation of a line given				___	___	___	___
		<ul style="list-style-type: none"> • a graph of a line • two points on the line • the slope and a point • the slope and y-intercept (A1.2.10) 							
Pages 442-448, 449-455, 456-462, 463-469, 470-475, 476-477, 477-479, 479-480, 481-493, 518, 531, 536, 569, 580, 585, 592, 600, 606, 625, 632, 644, 698, 708, 721	13.	solve practical problems using systems of linear equations by				___	___	___	___
		<ul style="list-style-type: none"> • graphing • elimination • substitution (A1.2.11) 							
Pages 175-178, 558-563, 570-574, 581-585, 586-592, 599, 601-606, 611, 612, 616	14.	add and subtract polynomials (A1.2.12)				___	___	___	___
Pages 570-574, 580, 586-592, 601-606, 608-610, 611-612, 614, 616	15.	multiply and divide binomials by binomials or monomials (A1.2.13)				___	___	___	___
Pages 570-574, 593-599, 600-606, 607-608, 613-617, 633-637, 647	16.	factor polynomials (A1.2.14)				___	___	___	___
Pages 304-311, 324, 421, 511, 649-656, 733	17.	estimate and simplify square roots (A1.2.15)				___	___	___	___

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Pages 620-625, 626-632, 633-637, 638-644, 645-648, 649-656, 660-662, 664-677, 708	18.	solve quadratic equations by				___	___	___	___
		<ul style="list-style-type: none"> • graphing • factoring • quadratic formula (A1.2.16) 							
Pages 80-84, 581-585, 612	19.	add, subtract, multiply, and divide simple rational expressions (A1.2.17)				___	___	___	___
Pages 390-396, 399, 402, 403, 419, 430-438, 448, 505, 518, 656	20.	collect, organize, interpret data, and predict outcomes using the mean, mode, median, and range (A1.2.18)				___	___	___	___
Pages 274, 404-410, 432, 437	21.	identify the equation for a line of regression and use the results to predict specific values of a variable (A1.2.19)				___	___	___	___
Pages 342-348, 349-355, 356-361, 362-367, 368-373, 374-377, 378-387, 462, 505, 536, 574, 648, 687	22.	predict the outcomes of simple events using the rules of probability (A1.2.20)				___	___	___	___
Pages 397-403, 404-410, 420-425, 426-427, 430-439, 518, 538-540, 656	23.	in order to perform statistical analyses, use				___	___	___	___
		<ul style="list-style-type: none"> • flow charts • histograms • scatter diagrams • normal distribution curves (A1.2.21) 							