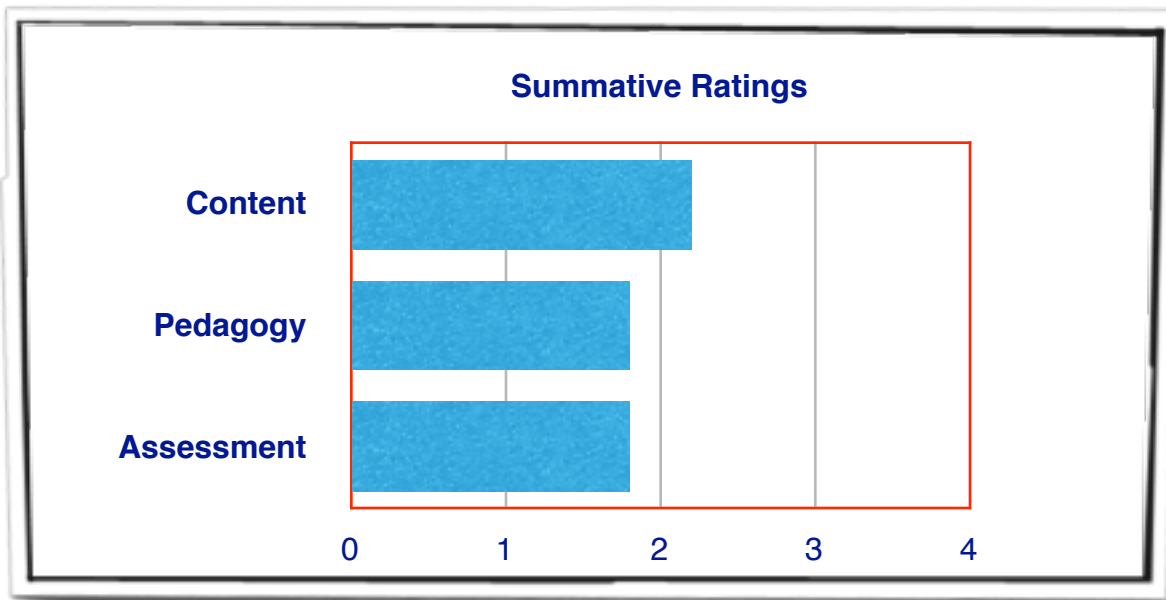


**Curriculum Materials Review  
Delaware Mathematics Coalition**

**Name:** *Prentice Hall Algebra I*  
**Authors:** Charles, Hall, Kennedy, Bellman, Bragg, Handlin, Murphy & Wiggins  
**Publisher:** Pearson  
**Copyright:** 3<sup>rd</sup> Edition, 2011



Not recommended  
 Recommended

	<b>Commentary</b>
<b>Rationale</b>	<p>The Delaware High School Curriculum sub-committee does not recommend the <i>Prentice Hall Algebra</i> series as a curricular option that is likely to promote a significant level of success for all high school students. The committee shares a number of deep concerns about these materials not the least of which is the sense that the authors of this series do not seem to believe that students can actually make sense of important mathematical ideas. There is little or no balance in these materials with the authors settling time and again for the presentation and practice <i>ad nauseam</i> of mathematical procedures devoid of meaning for most students. There are at best a few half-hearted attempts at letting students notice patterns or make sense of important mathematical ideas but there is almost an air of cynicism around the idea that mathematics can seem sensible to all students. For example, a routine feature is the “Think about It” side bar but no sooner is a question posed than the answer is proffered. Clearly, students are not expected to “think about” these or any other important concepts in the <i>Prentice Hall</i> curriculum. Despite the attempt to update this edition with trendy gimmicks, there is little new in these materials which seem to represent just one more iteration of a mediocre brand.</p>

	<b>Commentary</b>
<b>Content</b>	<p><i>Prentice Hall Algebra I</i> does not seem to place a premium on developing mathematical understanding in any meaningful or even purely mathematical context. Definitions are presented without development and procedures explicated in a step-by-step manner. According to our panel, this text seemed to feature an almost exclusive preoccupation with the production of procedural fluency and placed “little emphasis on conceptual understanding.” As one reviewer put it, “there is nothing there to promote a deeper understanding, and it seems to rely on students just accepting and memorizing.” Not only are there few applications featured in this text, there is also a dearth of opportunities for real problem solving. A lot of ground is covered but this, too, gave rise to concern. Wrote another reviewer, “I was extremely concerned about the significant amount of material that was presented in each lesson. I believe that students would struggle with trying to figure out what they were supposed to be learning.” This was echoed by another member of our panel who noted that there are “literally hundreds of problems for students to do, but only in a purely symbolic way.” Ultimately, this was characterized as “a very traditional text.”</p>
<b>Pedagogy</b>	<p>The pedagogical model exemplified by this text relies heavily on demonstration and practice with little opportunity for learning through problem solving and “furthermore, students are not asked to be metacognitive about their learning.” Concluded one reviewer, “there is no investigative approach in this text.” One consequence of this, the review continued, was that “there is no need for students to talk to each other at all” nor for much discourse between students and teacher because “all of the information is just given.” Another member of our panel had a slightly different take on this: “There were places in the text where students were provided too much scaffolding. However, there were other situations where none was provided.” Given the wealth of information provided, there was little attempt to connect the mathematics to real world situations and “few chances for students to discover and organize their own thoughts.” The “lack of technology” was also cited by our panel as problematic.</p>
<b>Assessment</b>	<p>The summative assessments seem to reflect the procedural fluency developed throughout the text. The assessments themselves do represent the learning goals of the chapter, however, they seem deficient in providing students the opportunity to transfer this knowledge to a new situation by varying the context. The instructor would have a difficult time evaluating whether a student understood the concepts or simply possessed the ability to repeat previously taught material. Embedded throughout the text are ample openings for formative assessment. The text provides plenty of opportunities to assess procedural fluency in the “Got It?” and “Do You Know How?” sections. The “Do You Understand?” sections allow for open-ended, error analysis, reasoning, and writing formative evaluations.</p>

	<b>Commentary</b>
<b>Support</b>	<p>According to the website, this curriculum is intended to address “basic concepts.” The claim that the skills section features “abundant exercises” is probably an understatement! The “Grab and Go” resource includes practice masters, re-teaching masters, enrichment pages, and even “projects.” Some of these latter are judged to be “not bad” but, given the pedagogical model of this curriculum, project learning is not generally supported and probably rarely used. There are check point quizzes, checkups (which can be used as formative assessments), and two versions of the unit assessment, one of which is purportedly adapted for students with special needs. The only major difference that this panelist found between the A &amp; B forms of the assessments were friendlier numbers on form B. There are some graphic organizers available for the units and they come with different levels of specificity. The CD includes lesson presentations that are very highly scripted, going as far as telling the teacher where to pause in the presentation. The teacher express CD includes a lesson view/lesson planner. A PowerPoint slideshow is available for each lesson but our panel judged the use of such a resource likely inimical to sound pedagogical practice. The publisher provides the following link to research on this curriculum.</p> <p><a href="http://www.pearsonschool.com/live/assets/20096/phmath_alg1_summary_report_16585_1.pdf">http://www.pearsonschool.com/live/assets/20096/phmath_alg1_summary_report_16585_1.pdf</a></p>
<b>Organization</b>	<p><i>Prentice Hall Algebra I</i> exemplifies the classic American organizational scheme for an algebra textbook which has been in place for a least five decades but has been called into question over the past twenty years or so. In the first place, there is absolutely no integration of topics. (As a minor concession to the standards movement, a chapter on Data Analysis and Probability is tacked on to the very end of this volume.) The presentation of materials begins with expressions, then moves on to equations, and lastly, and often not very convincingly, to functions. This is absolutely consistent with the notion that mathematics is most efficiently learned as a series of loosely connected procedures from least to most complex, but completely at odds with recent research which suggests that enduring learning occurs when students are given a context in which they can use mathematical language to model and analyze an actual situation. Put another way, given that variables, expressions and equations are essential components of the grammar of mathematics, this grammar should be learned in the context of the use of mathematics, not before or somehow anticipating the eventual use of that mathematical language.</p>