

Math Textbook Reviews:

Section 1, June 2014

Publisher: Pearson/Prentice Hall

Textbook Title: Calculus AP Edition

Grade band: High school advanced math

Focus Metrics	
A. In any single course, materials are designed so teachers and students spend at least 50% of their time on the Widely Applicable Prerequisites (see Appendix B).	Yes
B. Topics from future courses are clearly identified as such in the materials and do not detract from focus.	Yes
Does this textbook meet the requirements for focus?	Yes
Justification/Notes: Alignment: The correlation document supplied by the publisher was correct. All material contained in the book was required by The College Board. Appendix A contains a review of Algebra and Chapter 1 Functions is a review of previous material and is marked as such in the correlation document.	

Rigor Metrics	
A. For the widely applicable prerequisites, the three aspects of rigor are given full attention: conceptual understanding, procedural fluency, and application.	Yes
B. High quality problems and questions designed to invite exploration and support conceptual understanding are included for content standards and clusters that explicitly call for it. A variety of conceptual problems enable students to connect mathematical ideas and representations, and transfer understandings to new situations.	Yes
C. Materials support the development of fluency, including opportunities to practice algebraic manipulation and computation, appropriately apply tools, and use technology. Sometimes problems are purely procedural, none are based on non-mathematical tricks or mnemonics.	Yes
Does this textbook meet the requirements for rigor?	Yes
Justification/Notes: Rigor: Lesson problem sets begin with a review of material introduced in the lesson that require students to reason and explain in writing, move into basic skill practice, further exploration problems, and additional exercise problems. Algebraic, CAS, and graphing calculator problem types are present. Chapters end with review exercises and AP Exam multiple choice and free response type questions. Using the lessons on the Fundamental Theorem of Calculus (5.4) as an example, there were 6 writing about concepts problems, 15 graphical reasoning problems, 94 integration problems to solve with increasing difficulty, and no application word problems.	

Were both non-negotiables in Section I met? Yes

Optional Additional Comments from Reviewers: n/a

Section 2

	Number rating	Comments
6a Materials connect the math practices to the content standards in meaningful and intentional ways. The development of the practices is well-grounded in content and not in isolation.	1	Mathematical Practices are present but not explicitly stated or referred to.
6b Materials include teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development. Problems and activities present opportunities for students to make use of an exhibit the practices as they work on content.	0	No teacher directed materials that explain the role of the practice standards.
6c Particular attention is given to: MP3 - Construct viable arguments and critique the reasoning of others: Students are encouraged to create and test mathematical arguments, make generalizations and provide justifications, particularly in standards that explicitly call for it, in a manner of reasoning appropriate to the course.	1	There are 1 or 2 problems in each problem set and a free-response AP practice question at the end of each chapter that ask students to explain why or why not. These could be adapted by the teacher to satisfy the MP3 requirement.
6d Particular attention is given to: MP4 - Model with mathematics: Students should be given opportunities to apply mathematics learned in novel	2	

<p>situations, with an appropriate tradeoff between the complexity and novelty of the problem and the newness of the content they are asked to use. Modeling problems should draw heavily from major work of the grade level or securely-held content, integrated across multiple domains/clusters where appropriate. Standards with explicit expectations for modeling are indicated with a star (*).</p>		
<p>7a Connections are made within a course between clusters and domains, where these connections are appropriate and natural.</p>	2	
<p>7b Materials are vertically coherent with previous courses and these connections are made clear in the materials. Materials include attention to the development of the math practices appropriate to the level of the course.</p>	2	
<p>8a Materials support teachers in ways such as the following: planning(including ideas for pacing), introducing lessons, assessment types, vocabulary.</p>	2	<p>Materials provided for teachers include –</p> <ul style="list-style-type: none"> • Hardcopy Resources <ul style="list-style-type: none"> ○ Teacher’s Solution Manual (some problems contain text discussion as well as worked out solution) ○ Test Prep ○ Graphing Calculator Manual

		<ul style="list-style-type: none"> ○ Annotated Teacher's Edition • Downloadable Resources <ul style="list-style-type: none"> ○ Teacher Resource Guide ○ Guided Projects and answers ○ Annotated Table of Contents ○ Learning Objectives by Section ○ Index of Applications ○ Teacher's Solution Manual • Software <ul style="list-style-type: none"> ○ TestGen test generator by Pearson • Online <ul style="list-style-type: none"> ○ MathXL for School (online homework, assessment, and instructional tutorials) • Optional <ul style="list-style-type: none"> ○ MyMathLab for School
8b Materials are clear and easy to read for students, teachers, parents. The design and graphics do not distract from the mathematics.	2	
8c. Materials include supports for all learners, e.g., EL, students who are below grade level, advanced students.	0	No EL material or material for below grade level. Further exploration could provide some above grade level material.