

# Math Textbook Reviews:

Section 1, August 2014

Publisher: Agile Mind

Textbook Title: Calculus AB

Grade band: High school advanced math

Focus Metrics	
A. In any single course, 100% of the content standards are present in the materials for that course	Yes
B. Topics from earlier courses are used to support course-level work. Content from prior course is clearly indicated as such.	Yes
Does this textbook meet the requirements for focus?	Yes
Justification/Notes: Alignment: The correlation document supplied by the publisher was 100% correct. All material contained in the web based material was required by The College Board. Review material is noted in the Professional Support Section.	

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: Lessons contain animations to explain concepts and show real world applications of Calculus. Problem types are consistent with PARCC strategy – constructed response, multiple answer, error analysis, extraneous answers, and etc. Problem sets (assessments) move from guided practice to independent practice utilizing algebraic methods and graphing technology. Because the product is web based students questions are graded in real time and remedial instruction is given immediately. After the guided practice, students are offered more problems to solve before taking the online assessment. The assessment is composed of multiple choice and free response problems similar to the AP Exam format. Cumulative assessments are given at the end of lessons 16, 19, 26, and 31. Using the lessons on the Fundamental Theorem of Calculus (25) as an example, there were 2 writing about concepts problems, 4 graphical reasoning problems, 22 integration problems to solve with increasing difficulty, and 3 application word problems. After taking the test, student questions were graded. The correct answer and worked out solution are given.	

**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.	1	In the Deliver Instruction section, the practice standards are not mentioned by name but instructions to teacher make use of the practices and give students opportunity to use them
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.	2	Opportunities outlined in deliver instruction section and problem sets.
6d Particular attention is given to: MP4 - Model with mathematics: Students should be given opportunities to apply mathematics learned in novel 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	2	

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 (*).		
7a Connections are made within a course between clusters and domains, where these connections are appropriate and natural.	2	
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.	2	
8a Materials support teachers in ways such as the following: planning(including ideas for pacing), introducing lessons, assessment types, vocabulary.	2	<p>For each topic the following resources are provided for teachers –</p> <ol style="list-style-type: none"> <li>1. Prepare Instruction <ul style="list-style-type: none"> <li>• Goals and Objectives</li> <li>• Topic at a Glance</li> <li>• Prerequisite Skills</li> <li>• Resources</li> <li>• Language Support (vocabulary)</li> </ul> </li> <li>2. Activity Sheets</li> <li>3. Deliver Instruction <ul style="list-style-type: none"> <li>• Agile Mind materials</li> <li>• Opening the Lesson</li> <li>• Framing Questions</li> <li>• Lesson Activities</li> <li>• Further Questions</li> </ul> </li> <li>4. Scope and Sequence</li> </ol>

		<p>5. Shared Resources (Helpful Resources on the Internet)</p> <p>6. AP Practice Exams</p> <p>7. Plan the Course</p> <p>You can also create and administer online assignments and quizzes as well as make class announcements.</p> <p>Strong teacher support is provided.</p>
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.	2	<p>A Spanish/English glossary is provided. EL support is provided through language connections and visual representation as well as definitions in context.</p> <p>Further questions provided for advanced students.</p>