

**PURPOSE**

This tool provides guidance on how to best use the PARCC Mathematics Practice Test for grades 6-8 teachers. The following sections are included:

- [Test Structure](#)
- [Recommended Uses](#)
- [General Cautions](#)
- [Item Types](#)
- [Scoring and Results](#)
- [Resources](#)
- [Appendix](#)

**6-8 PARCC TEST STRUCTURE**

Specifics on the test structure and administration requirements are included in the [2014-2015 Math 6-8 PARCC Assessment Guide](#). The PARCC assessment is made up of two testing administrations, the Performance Based Assessment (PBA) and the End of Year Assessment (EOY). The testing dates follow:

Component	Format and Administration
Performance-Based Assessment (PBA)	<b>Test Administration Dates</b> <b>Paper-based Tests (PBT): March 16-20, 2015</b>
End-of-Year Assessment (EOY)	<b>Test Administration Dates</b> <b>Paper-based Tests (PBT): May 4-8, 2015</b>

The structure and time allowed on the grades 6-8 assessments are outlined below:

PBA Unit 1	PBA Unit 2	EOY Unit 1	EOY Unit 2
Type I, II, and III tasks Hand- and computer-scored Grades 6-7: 17 tasks* Grade 8: 18 tasks		Type I tasks only Computer-scored Grade 6: 34 tasks Grades 7-8: 33 tasks	
Time			
80 minutes 2 sections: non-calculator/calculator	70 minutes calculator	80 minutes Grades 6 & 8: non-calculator Grade 7: 2 sections: non-calculator/calculator	75 minutes calculator

Access the 6-8 PARCC paper-based practice tests: <http://parcc.pearson.com/practice-tests/math/>

Grade	PBA	EOY
Grade 6	<a href="#">Test</a> and <a href="#">Answer Key</a>	<a href="#">Test</a> and <a href="#">Answer Key</a>
Grade 7	<a href="#">Test</a> and <a href="#">Answer Key</a>	<a href="#">Test</a> and <a href="#">Answer Key</a>
Grade 8	<a href="#">Test</a> and <a href="#">Answer Key</a>	<a href="#">Test</a> and <a href="#">Answer Key</a>

\* For both PBA and EOY, there will be a small number of field test items in each unit. The time allowed takes this into consideration.  
Posted: January 27, 2015

## RECOMMENDED USES

There are a number of ways to use the practice tests to prepare your students for the full PARCC administration.

General Use	Specific Guidance	Notes for Use
<b>Teacher understanding of the test</b>	Connection between items and <a href="#">evidence statements</a>	<ul style="list-style-type: none"> <li>Understand the types of items associated with certain evidence statements to provide clarity. The answer key for each practice test lists the evidence statement to which each item is aligned.</li> <li>Helps answer questions like: “What does this evidence statement look like as an assessment item?” and “How does my interpretation of the standards compare with the interpretation through PARCC’s evidence statements?”</li> </ul>
	Basis of comparison for purchased and open-source assessments	<ul style="list-style-type: none"> <li>Use as a guide when selecting assessments in terms of test length, rigor-level, content, item types and variety, and scoring.</li> <li>Helps answer questions like: “Does the unit assessment provided in the curriculum offer the item variety and flexibility similar to the PARCC test?” and “What ways can I adjust a pre-made assessment to meet the rigor-level expected of my students?”</li> <li>Use in conjunction with <a href="#">Instructional Materials Evaluation Tools</a> provided by the LDE.</li> </ul>
	Samples of items aligned to integrative evidence statements	<ul style="list-style-type: none"> <li>Understand how the standards connect to help students complete tasks, as detailed in the PARCC <a href="#">integrative evidence statements</a>.</li> <li>For example, 6.Int.1<sup>†</sup> is an integrative evidence statement assessed on the grade 6 EOY that integrates skills from the Number System domain in problem-solving situations. <a href="#">Item #17</a> on the EOY practice test is aligned to 6.Int.1.</li> </ul>
	(PBA only) Use rubrics to understand the expectations for student responses to modeling and reasoning items	<ul style="list-style-type: none"> <li>Illustrate how student responses connect to the math practices.</li> <li>Illustrate the level of reasoning expected in student responses.</li> <li>Expectations for a complete response include addressing all parts (e.g., part A, part B, etc.) of an item and all components of each part (e.g., within one part make a claim, justify a claim, and show work with each component worth points).</li> </ul>
<b>Test administration preparation<sup>‡</sup></b>	Facilitate testing discussions between teachers and students	<ul style="list-style-type: none"> <li>A sample set of guiding questions and discussion topics are provided as <a href="#">Handout 2</a> in the appendix.</li> <li>For example, teachers should discuss timing and pacing, the various item types that students will experience, and the components of complete responses.</li> </ul>
	Practice timing and pacing by using the test in full	<ul style="list-style-type: none"> <li>Timing information can be found in <a href="#">this document</a> and in the <a href="#">2014-2015 Math 3-5 PARCC Assessment Guide</a>.</li> </ul>

<sup>†</sup> Solve two-step word problems requiring operations on multi-digit whole numbers or decimals.

<sup>‡</sup> PARCC has a [Paper-Based Tutorial](#) available to help students understand administration procedures and expectations. The tutorial contains a mix of tasks for grades 6-8, so it should not be used to examine content. Students should only use the tutorial as practice for filling in responses and understanding directions.

General Use	Specific Guidance	Notes for Use
	Practice transition from non-calculator to calculator sections within the same unit.	<ul style="list-style-type: none"> <li>Review all work in the non-calculator section 1 of the unit before asking for a calculator.</li> <li>Students will <b>not</b> be allowed to return to the non-calculator section 1 of the unit once issued a calculator, regardless of remaining time.</li> <li>Proceed with section 2 once receiving a calculator.</li> <li>Move from section 1 to section 2 at student’s own pace. There is <b>no</b> timing break between sections. <b>Both sections must be completed within the allotted time for the unit.</b><sup>5</sup></li> </ul>
	Practice responding to PARCC-specific testing format	<ul style="list-style-type: none"> <li>Highlighting text or placing an X to the right of the text in an option are recommended ways for students to eliminate options.</li> <li>Crossing out options may create scoring issues if bubbles are marked through.</li> <li>When skipping items to come back to, students may want to make a list (on scratch paper) of question numbers to return to.</li> <li>Students need to be sure that they have filled in a bubble, or bubbles, or a grid for each question.</li> <li>Students should make sure they mark the correct bubble based on what was written in the top row of the fill-in-the-blank grid.</li> </ul>
<b>Using practice test items during instruction and assessment</b>	Incorporate piecemeal into teacher-made lessons, openers, or closing activities	<ul style="list-style-type: none"> <li>Items aligned to previously taught content may serve well as lesson openers; while, items aligned to current and future content may better be used in teacher-made lessons or closing activities.</li> <li>Discussion of items should not be limited to content and correct answers, but should expand to include solving strategies and administration concerns previously addressed in this document.</li> </ul>
	Template for teacher-made assessments	<ul style="list-style-type: none"> <li>Provide a variety of item types to assess skills as appropriate.</li> </ul>

### GENERAL CAUTIONS

- Overall student profile:** The practice test should **not** be used to gather cumulative data about overall student performance and preparedness. The EOY is administered in May, when curriculum should be complete. Students have not yet learned all the material to be successful on the practice test.
- Content prioritization:** Teachers should **not** prioritize content based on the standards assessed on the practice test. The standards covered on the practice test do not represent all of the standards eligible for actual PBA and EOY assessments. To learn more about the standards and item types possible on the assessment review the [assessment guides](#).

### ITEM TYPES

Practice with various item types: multiple-choice, multiple-select, and fill-in-the-blank.

<sup>5</sup> For EOY, this only applies to grade 7. However, all grades 6-8 must understand this transition for Unit 1 of the PBA. More information can be found in the [2014-2015 Math 6-8 PARCC Assessment Guide](#)

Type	Specifics	Point Value	Practice Test Examples
Multiple-choice <i>PBA AND EOY</i>	<ul style="list-style-type: none"> <li>4 answer choices</li> <li><b>only one</b> correct answer</li> </ul>	<ul style="list-style-type: none"> <li>1 point</li> </ul>	<ul style="list-style-type: none"> <li>grade <a href="#">6 PBA</a> p. 6, # 1</li> <li>grade <a href="#">6 EOY</a> p. 6, #s 1 and 2</li> <li>grade <a href="#">7 PBA</a> p. 6, # 1</li> <li>grade <a href="#">7 EOY</a> p. 11, # 10</li> <li>grade <a href="#">8 PBA</a> p. 7, # 4</li> <li>grade <a href="#">8 EOY</a> p. 6, # 2</li> </ul>
Multiple-select <i>PBA AND EOY</i>	<ul style="list-style-type: none"> <li>5-7 answer choices</li> <li><b>one or more than one</b> correct answer</li> <li>Directions do not indicate the number of correct answers to be selected only that multiple answers may need to be selected (“Select <b>each</b> correct answer.” “Select <b>all</b> that apply.”)</li> </ul>	<ul style="list-style-type: none"> <li>1 point</li> <li>all correct answers and no incorrect answer must be chosen</li> <li><b>no partial credit</b></li> </ul>	<ul style="list-style-type: none"> <li>grade <a href="#">6 EOY</a> p. 7, # 4</li> <li>grade <a href="#">7 PBA</a> p. 6, # 2</li> <li>grade <a href="#">7 EOY</a> p. 6, # 1</li> <li>grade <a href="#">8 PBA</a> p. 6, # 1</li> <li>grade <a href="#">8 EOY</a> p. 7, # 3</li> </ul>
Fill-in-the-Blank <i>PBA AND EOY</i>	<ul style="list-style-type: none"> <li>Write each part of the answer in a separate box and shade the bubble of the corresponding figure or number in the same column (<a href="#">Handout 1</a>)</li> <li>Do not skip boxes</li> <li>Cannot grid a fraction answer, fractions must be converted to the indicated decimal place value</li> <li>Negative sign only used when needed, otherwise left blank</li> </ul>	<ul style="list-style-type: none"> <li>1 point</li> </ul>	<ul style="list-style-type: none"> <li>grade <a href="#">6 PBA</a> p. 8, # 4</li> <li>grade <a href="#">6 EOY</a> p. 7, # 3</li> <li>grade <a href="#">7 PBA</a> p. 7, # 3</li> <li>grade <a href="#">7 EOY</a> p. 7, # 3</li> <li>grade <a href="#">8 PBA</a> p. 6, # 2</li> <li>grade <a href="#">8 EOY</a> p. 6, # 1</li> </ul>
Open-Response <i>PBA ONLY</i>	<ul style="list-style-type: none"> <li>Complete all parts and all components of each part</li> <li>Only what is written in the box provided will be scored. Writing that falls outside of the box will not be scored.</li> <li>Crossed-out work will not be scored</li> <li>Students may not need all the space provided, but must fit all of their answer within the space</li> </ul>	<ul style="list-style-type: none"> <li>Dependent on rubric</li> </ul>	<ul style="list-style-type: none"> <li>grade <a href="#">6 PBA</a> p. 14-15, # 10</li> <li>grade <a href="#">7 PBA</a> p. 16, # 11</li> <li>grade <a href="#">8 PBA</a> p. 17, # 13</li> </ul>

## SCORING AND RESULTS

- Overall student results:** When scoring student performance on the practice tests, do **not** make assumptions about a student’s score (i.e., 70% equals a D). Unlike daily assignments, statewide assessments—LEAP, EOCs, PARCC, etc. —are not scored on a grading scale where, for example, answering 95% of questions correctly is always an A, nor answering only 40% of questions correctly is always an F. To score the practice test in this way would be inaccurate. Instead, consider trends, such as those presented in the table that follows, and adjust instruction appropriately.

- **Scoring:**
  - Each multiple-choice, multiple-select, and fill-in-the-blank item is worth one point each.
  - (PBA only): Each open-response item may or may not be multi-part, scoring is dependent on how the rubric assigns points as detailed in each answer key.
  - (EOY only): For any item with multiple parts, each part is worth one point (so a 2-part item would be 1 point for part A and 1 point for part B for a total of 2 points.)
- **Results:** Look for content and administration trends such as those detailed below.

Trends to Look For	Examples of Trend	Recommendations
<b>Content Trends</b>		
Inform remediation needed	Students may have missed an item aligned to a particular standard that has been previously taught and assessed by other measures.	Incorporate the material in to current lessons, as extensions of homework assignments, or as bell-ringer discussion. Remediation Guides ( <a href="#">grade 6</a> , <a href="#">grade 7</a> , <a href="#">grade 8</a> ) located in the Teacher Toolbox can help teachers in this task.
Modeling tasks	Student responses indicate difficulty when explaining how a given model supports the correct answer.	Examples of modeling tasks found in the Math Guides books, specifically Extended Constructed Response Tasks ( <a href="#">grade 6</a> , <a href="#">grade 7</a> , <a href="#">grade 8</a> ) and Instructional Tasks ( <a href="#">grade 6</a> , <a href="#">grade 7</a> , <a href="#">grade 8</a> ).
Reasoning tasks	Student responses indicate gaps and assumptions in the reasoning process.	Incorporate more writing activities wherein students explain the reasoning of others.
Inform remediation of securely-held knowledge	Student incorrectly solves a problem which requires knowledge of equations or other information not provided on the reference sheet (e.g., find the area of a rectangle).	Incorporate this skill as part of class activities to refresh and strengthen.
<b>Administration Trends</b>		
Multiple-choice vs. multiple-select	Students choose more than one answer for multiple-choice.	Have students create comparison charts, with examples, to illustrate the difference between the two question types.
Multiple-select	Students only select one correct bubble for multiple-select when more than one correct answer is given.	Create multiple-select items for lessons as discussion topics for groups. Carefully, weigh each answer option. Discuss why each correct answer is correct and vice versa.
Fill-in-the-blank	Students do not fill in the grids correctly.	Using <a href="#">Handout 1</a> , have students compare the acceptable grids to the unacceptable grids and determine what makes for an unacceptable grid.
Open-response **	Students address all parts of a task, but not all components of each part.	Have students score their own responses according to the rubric to see how points are awarded for each component.
Testing strategies	Students skip difficult questions with intentions to return, but cannot find all skipped questions on review.	Have students practice making a list of skipped questions on scratch paper during classroom assessments. Have the class brainstorm other

\*\* PBA only

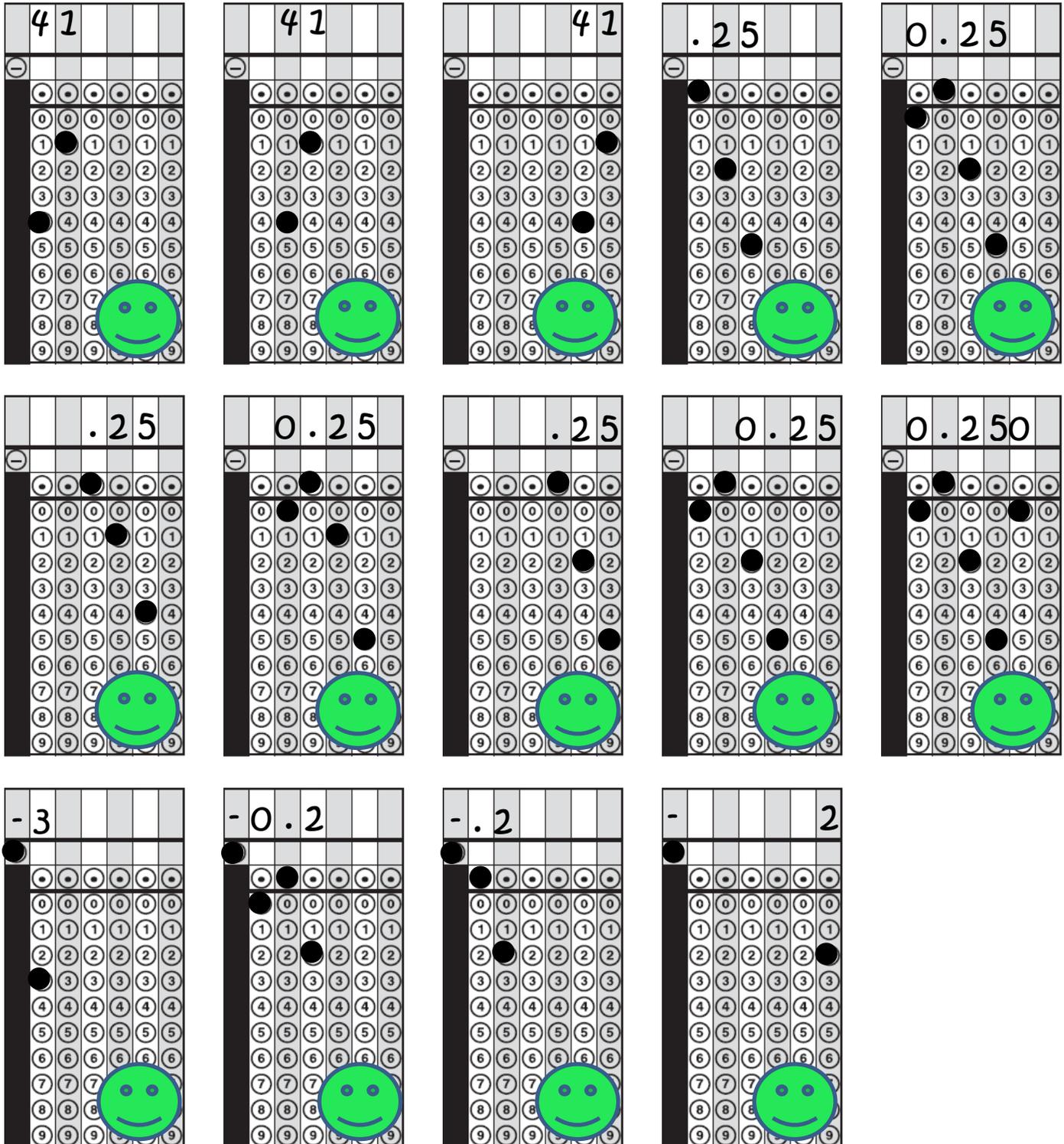
Trends to Look For	Examples of Trend	Recommendations
Non-calculator vs. Calculator	Students move on to calculator section 2 without having gone back to skipped questions within section 1.	strategies to not forget skipped questions. Have students separate their scratch paper by section so that they revisit skipped questions for section 1 before moving on to section 2.

## RESOURCES

- [PARCC Mathematics Test Documents](#)
  - [Mathematics High Level Blueprint](#)
  - [Claims Structure Documents, Grades 3-8](#)
  - Evidence Statement Tables, [grade 6](#), [grade 7](#), [grade 8](#)
  - Informational Guides to Summative Assessments in Mathematics, [grade 6](#), [grade 7](#), [grade 8](#) (includes color-coded, combined PBA and EOY evidence tables)
  - [Grades 6-8 Mathematics Paper-Based Student Tutorial](#)
- Extended Constructed Response Tasks from the 2014 Math 6-8 Guidebook, [grade 6](#), [grade 7](#), [grade 8](#)
- Instructional Tasks from the 2014 Math 6-8 Guidebook, [grade 6](#), [grade 7](#), [grade 8](#)
- [Math Sample Items](#)
- [EAGLE](#)
- [Illustrative Mathematics](#)

APPENDIX

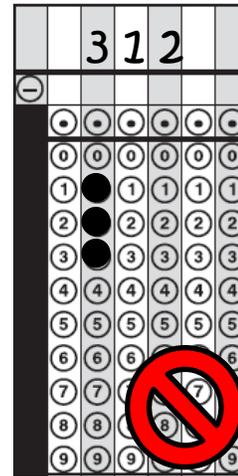
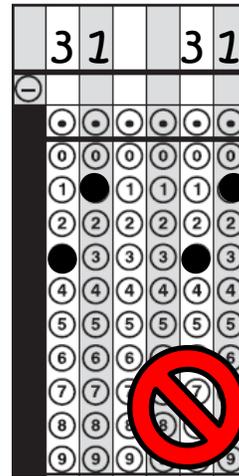
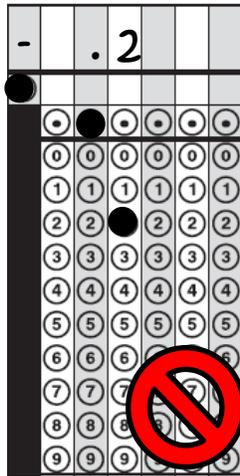
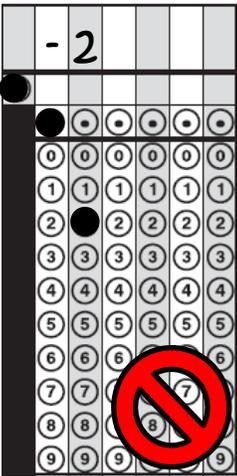
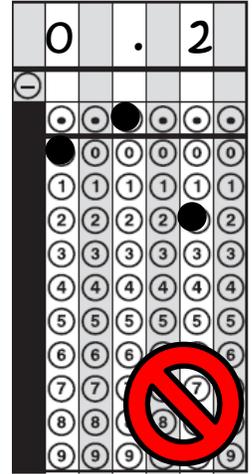
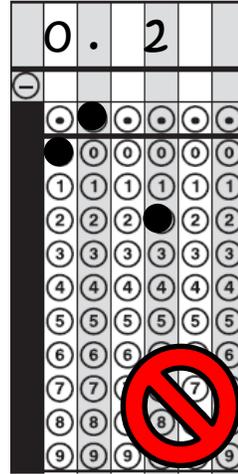
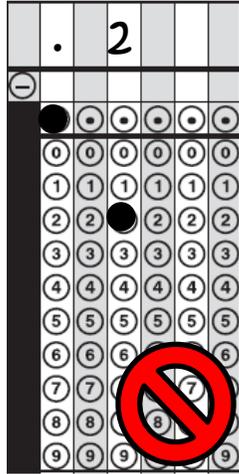
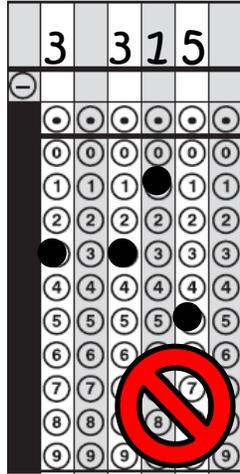
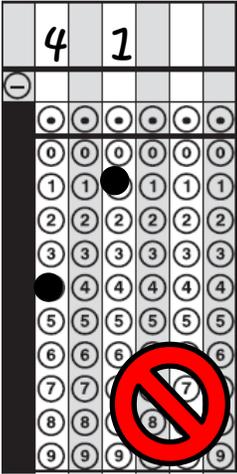
Handout 1: Fill-in-the-Blank Visual Guide: Acceptable Ways to Grid Answers



The following table lists the 15 acceptable ways to grid answers shown in the image:

41	41	41	.25	0.25
.25	0.25	.25	0.25	0.250
-3	-0.2	-.2	-	2

Unacceptable Ways to Grid Answers



**Handout 2**

## Guiding Questions and Discussion Topics

Discuss the following questions as a whole class or in small groups.

1. What do the directions for multiple-select questions look like?
2. What are some differences between multiple-choice and multiple-select questions?
3. Is multiple-select more challenging than multiple-choice? Why or why not?
4. What are important steps to know about completing fill-in-the-blank test questions?
5. What do you do if you get a fraction as an answer for a fill-in-the-blank test questions?
6. What do you do if the answer you get for a fill-in-the-blank item doesn't fit in the spaces provided?
7. What are important things to remember if you plan to cross-out, underline, or highlight answer choices?
8. What are some ways to keep track of skipped test questions?
9. What are important things to remember about a unit that is split into non-calculator and calculator sections?

Discuss the following topics as a whole class or in small groups.

1. Most challenging questions vs. least challenging questions
2. Concerns about completing the test in the given amount of time and time-management strategies
3. Concerns about non-calculator items
4. Concerns about problem-solving and/or fluency items
5. Differences in problem-solving strategies among students