Released Items
Grade 6 Math
AzM2

Updated September 2019

Prepared by the Arizona Department of Education
About the Released Items

The AzM2 Released Items provides details about the items, student response types, correct responses, and related scoring considerations for released AzM2 test items.

Within this guide, each item is presented with the following information:

- Cluster
- Content Standard
- Depth of Knowledge (DOK)
- Static presentation of the item
- Static presentation of student response field (when appropriate)
- Answer key, rubric or exemplar
- Applicable score point(s) for each item
- Option rationales (when applicable)

The items included in this guide are representative of the kinds of items that students can expect to experience when taking the computer-based test for AzM2 Grade 6 Math.
Grade 6 Math Released Items

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Content Standard</th>
<th>DOK</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.RP.A</td>
<td>6.RP.A.3</td>
<td>3</td>
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</tbody>
</table>

Jasmine is going to make a berry salad for a party. Her salad will include only blueberries, raspberries, and strawberries.

She wants the ratio of blueberries to strawberries to be 2:5 and the ratio of blueberries to all berries to be 4:23.

How many of each type of berry can she put into the salad?

- **blueberries:** 4
- **raspberries:** 9
- **strawberries:** 10

(1 Point) Student entered any three integer values that resulted in a blueberry to strawberry ratio of 2:5, and a blueberry to all berry ratio of 4:23.
Complete the table to show the value of each expression when $x = -2$.

<table>
<thead>
<tr>
<th>Expression</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>$x$</td>
<td>$-2$</td>
</tr>
<tr>
<td>$</td>
<td>x</td>
</tr>
<tr>
<td>$-</td>
<td>x</td>
</tr>
</tbody>
</table>

(1 Point) Student entered both correct values.
(1 Point) Student selected both correct options.

Option Rationales:

**Choice A:** The student may have focused on the absolute value of the number and not the fact that it is negative, or below zero.

**Choice B:** The student may have focused on the absolute value of the number and not the fact that it is negative, or below zero.

**Choice C:** The student may have thought that "above zero" includes zero.

**Choice D: Key** - The student chose an example of a temperature that is above zero.

**Choice E: Key** - The student chose an example of a temperature that is above zero.
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A net representing a three-dimensional figure is shown, with lengths in centimeters (cm).

9 cm

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>2 cm</td>
<td></td>
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<tr>
<td>2 cm</td>
<td></td>
<td>2 cm</td>
</tr>
</tbody>
</table>

What is the surface area, in square centimeters (cm²), of the figure?

80 cm²

(1 Point) Student entered 80 or any equivalent value.
Select all of the statistical questions.

- [ ] What is the teacher’s favorite fruit?
- [x] What is the favorite fruit of the students in the class?
- [ ] Do more students in the class prefer bananas or apples?
- [ ] Do most of the students in the class like strawberries?
- [x] How many pieces of fruit did each student in the class eat this week?

(1 Point) Student selected both correct options.

Option Rationales:

**Choice A:** The student recognized that there are a number of possible responses but did not recognize that this is not statistical since this is only asking one person.

**Choice B:** Key - The student correctly identified that this question is statistical because each student has a different opinion and the favorite fruit of all students can only be determined by collecting data and analyzing the results.

**Choice C:** The student may have thought that this question could have various responses, but the answer to this question is either apples or bananas, which means there is no variability.

**Choice D:** The student may have thought that there would be different responses to this question but did not realize that the answer is a set number of students who like strawberries.

**Choice E:** Key - The student correctly identified that this question is statistical because there is variability in the responses from the students.