About the Sample Test Scoring Guide

The AzM2 Sample Test Scoring Guides provide details about the items, student response types, correct responses, and related scoring considerations for AzM2 Sample Test items.

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

- Item number
- 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

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 4 Math.
Grade 4 Math Sample Test

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Cluster</th>
<th>Content Standard</th>
<th>DOK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.NF.C</td>
<td>4.NF.C.5</td>
<td>2</td>
</tr>
</tbody>
</table>

An expression is shown.

\[
\frac{5}{10} + \frac{13}{100}
\]

What is the value of the expression?

\[
\frac{63}{100}
\]

(1 Point) Student entered \(\frac{63}{100}\) or any equivalent value.
### Item Number | Cluster | Content Standard | DOK
--- | --- | --- | ---
2 | 4.OA.B | 4.OA.B.4 | 1

Select all of the factors that 14 and 24 have in common.

- [x] 1
- [x] 2
- [ ] 3
- [ ] 7
- [ ] 14
- [ ] 24

*(1 Point)* Student selected the two correct options.
(1 Point) Student created a correct fraction model and a correct comparison. Any model with 4 shaded blocks accepted.
Kelly and Lucy have two different-sized sandwiches, as shown.

- Kelly ate $\frac{2}{4}$ of her sandwich.
- Lucy ate $\frac{3}{6}$ of her sandwich.

Kelly says that each girl ate the same amount of sandwich. Lucy disagrees.

Who statement is true?

A. Kelly is not correct because $\frac{3}{6}$ is greater than $\frac{2}{4}$.

B. Lucy is not correct because $\frac{2}{4}$ is greater than $\frac{3}{6}$.

C. Kelly is correct because they each ate half of a sandwich.

D. Lucy is correct because they each ate half of different-sized sandwiches.

(1 Point) Student selected the correct option.
Select all of the shapes that do not have an obtuse angle.

(1 point) Student selected the two correct shapes.
A line plot with data for the heights of plants is shown.

Heights of Plants (inches)

What is the difference, in inches, between the tallest and shortest plants?

\[
\frac{6}{8}
\]

(1 point) Student entered \(\frac{6}{8}\) or any equivalent value.
Select all of the expressions that have a value of $\frac{9}{8}$.

- $1 + \frac{1}{8}$  
- $1 + \frac{9}{8}$  
- $\frac{3}{8} + \frac{3}{8} + \frac{3}{8}$  
- $\frac{1}{8} + \frac{2}{8} + \frac{3}{8} + \frac{4}{8}$  
- $\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$

(1 Point) Student selected the three correct expressions.
Sami has 6 times as many books as Jeff.

Complete the table to show three different possible amounts of books Sami and Jeff could have.

<table>
<thead>
<tr>
<th>Sami’s Books</th>
<th>Jeff’s Books</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>24</td>
<td>4</td>
</tr>
<tr>
<td>18</td>
<td>3</td>
</tr>
</tbody>
</table>

(1 point) Student completed the table with all correct values. Any pair of numbers in the third row where Sami has 6 times as many books as Jeff, inclusive, but all rows must be different.
An equation is shown.

4000 ÷ □ = 400

What is the value of the missing number?

(1 point) Student entered 10 or any equivalent value.
Two models are shown. Each model has been shaded gray to represent a fraction.

Which statement is true about the fractions $\frac{3}{4}$ and $\frac{6}{8}$?

A. They are equivalent because each model is divided into equal parts.
B. They are not equivalent because the number of shaded parts in each model is different.
C. They are equivalent because the size of the areas shaded gray in both models is the same.
D. They are not equivalent because the models are divided into different numbers of equal parts.

(1 Point) Student selected the correct option.
A fraction model is shown, where each large rectangle represents one whole.

Which expression models the shaded region?

- A $\frac{2}{8} + 6$
- B $48 - 12$
- C $\frac{2}{8} \times 6$
- D $48 \div 6$

(1 point) Student selected the correct option.
What is the value of $1932 \div 4$? Enter your answer as a whole number.

483

(1 point) Student entered 483 or any equivalent value.
Tina is buying lunch. She pays for 3 drinks and 3 pieces of pizza with a $20 bill. The price for a piece of pizza is $3. She receives $5 in change.

What was the total cost of the 3 drinks?

$ 6

(1 point) Student entered 6 or any equivalent value.
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</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>4.NBT.B</td>
<td>4.NBT.B.4</td>
<td>2</td>
</tr>
</tbody>
</table>

A digit is missing in the addition problem shown.

\[
\begin{align*}
11, \boxed{\phantom{0}} & 69 \\
12,392 & \\
+24,921 & \\
\hline
48,582 & \\
\end{align*}
\]

What is the missing digit?

\[2\]

(1 point) Student entered the correct digit.
Two groups of shapes are shown.

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Shapes in Group 1" /></td>
<td><img src="image2" alt="Shapes in Group 2" /></td>
</tr>
</tbody>
</table>

Explain what property the shapes in Group 1 have that the shapes in Group 2 do not.

Type your answer in the space provided.

Group 1 has parallel sides.

**1 point** Student response included one or more of the following:

- Group 1 has parallel sides.
- Group 2 doesn’t have parallel sides.
Sample Test Scoring Guide-Grade 4 Math
Spring 2020

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<tr>
<td>16</td>
<td>4.NBT.B</td>
<td>4.NBT.B.6</td>
<td>2</td>
</tr>
</tbody>
</table>

Select all the expressions that have a value of 50.

- [ ] $600 \div 5$
- [ ] $500 \div 1$
- [x] $400 \div 8$
- [ ] $300 \div 7$
- [x] $200 \div 4$

(1 point) Student selected the two correct expressions.
Mr. Garcia asks his students to find a fraction that meets these conditions.

- The fraction is greater than $\frac{1}{2}$.
- The fraction is less than $\frac{4}{5}$.

Create a fraction that meets Mr. Garcia’s conditions.

\[
\frac{7}{10}
\]

(1 Point) Student entered $\frac{7}{10}$ or any fraction greater than $\frac{1}{2}$ and less than $\frac{4}{5}$. 
(1 point) Student created two correct fraction models and a comparison that correctly models the two fractions.
(1 point) Student selected the correct rounding category for each example.
What is the product of 4 and 2956?

11824

(1 point) Student 11824 or any equivalent value.
A pattern starts with the number 12. The pattern follows the rule “Multiply by 2 and then subtract 9.”

Complete the table to show the missing numbers in the pattern.

<table>
<thead>
<tr>
<th>First Number</th>
<th>Second Number</th>
<th>Third Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>15</td>
<td>21</td>
</tr>
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</table>

(1 Point) Student completed the table with two correct values.
Some friends buy a cake. Sam eats $\frac{2}{10}$ of the cake. Julie eats $\frac{3}{10}$ of the cake. Tyler eats $\frac{4}{10}$ of the cake.

How much of the cake is left?

A  $\frac{1}{1}$

B  $\frac{1}{10}$

C  $\frac{9}{10}$

D  $\frac{9}{30}$

(1 point) Student selected the correct option.
Joe measures his height. He is 5 feet tall. What is Joe’s height in inches?

60

(1 point) Student entered 60 or any equivalent value.
Kalli’s family is planning a sandbox for their backyard.

The sandbox must have
- a rectangular shape.
- a length of 8 feet.
- a perimeter greater than 20 and less than 30 feet.

Use the Connect Line tool to draw a possible plan for the sandbox.

(1 point) Student created a correct rectangle with a length of 8 feet and a perimeter between 20 and 30 feet.
Bernadette, Janet, Liza, and Raymond shared a plate of french fries. The fraction of the plate of french fries that each person ate is shown.

Bernadette: $\frac{2}{10}$
Janet: $\frac{3}{6}$
Liza: $\frac{1}{4}$
Raymond: $\frac{5}{100}$

Complete the sentence to create a true statement.

Liza ate more french fries than Bernadette but less than Janet.

(1 point) Student selected “Bernadette” or “Raymond” from the first dropdown, and “Janet” from the second dropdown.