The National Assessment of Educational Progress (NAEP) uses both multiple choice and constructed-response test items to assess fourth graders’ mathematical skills in five categories: number properties & operations, measurement, geometry, data analysis & probability, and algebra. Scale scores range from 0 to 500, wherein a 214 score denotes NAEP’s Basic achievement benchmark (i.e., approximately a “grade level” performance); 249 reflects Proficient results or competency on challenging material, and 282 is considered to be Advanced.

Wyoming and the Nation — Performance on Test Items

- Note: The position of a question on the scale represents the scale score by students who had a 65 percent probability of successfully answering a constructed response question, or a 74 percent probability of correctly answering a four-option multiple-choice question.
- *Italic* type denotes a multiple-choice question. Regular type denotes a constructed-response question. # Rounds to zero. ‡ Reporting standards not met.


Results are based on statistical tests which account for standard errors related to NAEP’s sampling procedures. For additional results and more information about Wyoming NAEP, please visit: [http://edu.wyoming.gov/Programs/statewide_assessment_system/naep.aspx](http://edu.wyoming.gov/Programs/statewide_assessment_system/naep.aspx).
Released Test Item Snapshot

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Plot points on a grid to satisfy the conditions

SAMPLE QUESTION:

On the grid below, plot the points that have coordinates (B, 1), (B, 3), and (D, 5).

Plot 3 more points on the grid so that when you connect all 6 points you will make a rectangle.

List the coordinates for the 3 new points.

\( (B, 5), (D, 3), (D, 1) \)

Connect the 6 points to show your rectangle.

Wyoming Mathematics 2009

Grade 4 Report

Released Test Item Snapshot

The National Assessment of Educational Progress (NAEP) uses both multiple choice and constructed-response test items to assess fourth graders' mathematical skills in five categories: number properties & operations, measurement, geometry, data analysis & probability, and algebra. Scale scores range from 0 to 500, wherein a 214 score denotes NAEP's Basic achievement benchmark (i.e., approximately a "grade level" performance); 249 reflects Proficient results or competency on challenging material, and 282 is considered to be Advanced.

Subtract a two-digit number from a three-digit number

This test item measures fourth-graders' performance in the number properties and operations content area. The question asks students to subtract a two-digit number from a three-digit number, which requires regrouping to obtain the correct answer of 226 (Choice A). Students were not allowed to use a calculator to answer this question.

SAMPLE QUESTION:

301
- 75
- -

A  226
B  235
C  236
D  374

A common incorrect answer (Choice C), which was selected by almost one-in-seven or 14 percent of grade 4 students in Wyoming, is a place-value error that can result from incorrect grouping in the ten's place.

<table>
<thead>
<tr>
<th></th>
<th>Choice A</th>
<th>Choice B</th>
<th>Choice C</th>
<th>Choice D</th>
<th>Omitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>WY</td>
<td>67</td>
<td>6</td>
<td>14</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>US</td>
<td>73</td>
<td>4</td>
<td>13</td>
<td>9</td>
<td>1</td>
</tr>
</tbody>
</table>


Results are based on statistical tests which account for standard errors related to NAEP's sampling procedures. For additional results and more information about Wyoming NAEP, please visit: