Functional Independence
Mathematics

Official Released Items

Grade 11

Spring 2006
Official Released Items
The Grade 11 Functional Independence Mathematics Assessment was administered for the first time in spring 2006. Beginning with this administration, the Office of Educational Assessment and Accountability (OEAA) will annually release a portion of the items that are administered on the assessment. This booklet contains released items from the spring 2006 administration and is intended to be used by districts to assist in their interpretation of item analysis data. The information contained in this booklet may also be used by schools, teachers, and parents as a resource for understanding the content and format of the assessment items. In addition to MI-Access training materials and Extended benchmarks (EB), the released items may also have utility in informing decisions related to instruction, curriculum, and assessment. These items are not secure and may be copied and distributed as needed.

The table below lists the number of core and released items administered on the spring 2006 grade 11 assessment booklet. Core items are those that count toward students’ scores. All released items in this booklet were selected from the pool of core items that appeared on the assessment.

### Functional Independence Mathematics Grade 11

<table>
<thead>
<tr>
<th>Mathematics Strand</th>
<th>Number of Core Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patterns and Relationships</td>
<td>4</td>
</tr>
<tr>
<td>Geometry and Measurement</td>
<td>16</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>2</td>
</tr>
<tr>
<td>Number Sense and Numeration</td>
<td>14</td>
</tr>
<tr>
<td>Numerical and Algebraic Operations</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Core Items/Points</strong></td>
<td><strong>40</strong></td>
</tr>
<tr>
<td>Released Items</td>
<td>10</td>
</tr>
</tbody>
</table>

(Numbers vary by strand and topic.)
R1  Students in a line were assigned a number (1, 2 or 3) depending on their position in the line.

The figure shows the number assigned to the first 5 students in the line.

Greg was the eighth person in the line.

What number was assigned to Greg?

A  1
B  2
C  3
R2  What is the **total** sum of these coins?

A  $0.65
B  $0.60
C  $0.50

R3  Jonathan had $46.

His mother gave him $21.

He loaned his sister $27.

How much money does Jonathan have **left**?

A  $19
B  $40
C  $67
R4 The map below shows the Library and Jill’s house.

Scale: Each square is one block.

Which route could Jill use to walk from the library to her house?

- **A** Walk 3 blocks north, then 2 blocks east.
- **B** Walk 2 blocks north, then 3 blocks west.
- **C** Walk 3 blocks west, then 3 blocks north.
R5  Brad is going to drive from Michigan to Connecticut.

In which general direction will he drive?

A  west  
B  south  
C  east
R6  Brian asked each student in his class to name his or her favorite soft drink flavor.

The results are shown below.

**Favorite Soft Drink Flavors**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cola</td>
<td></td>
</tr>
<tr>
<td>Lemon Lime</td>
<td></td>
</tr>
<tr>
<td>Orange</td>
<td></td>
</tr>
<tr>
<td>Ginger Ale</td>
<td></td>
</tr>
</tbody>
</table>

Which soft drink flavor is liked the **least**?

A  Cola  
B  Orange  
C  Ginger Ale
R7  Which number is less than 5,487?

A  5,921  
B  5,873  
C  5,298

R8  Kim has one hundred seventy-five coins in a jar.

What is this number in numerals?

A  100705  
B  17500  
C  175
R9  A pie is cut into 6 slices.

Bailey ate 3 slices.

What percentage of the pie did she eat?

A  25%
B  30%
C  50%

R10  Which of these number sentences is true?

A  $2.30 is less than $2.13 is less than $2.03
B  $2.03 is less than $2.13 is less than $2.30
C  $2.13 is less than $2.03 is less than $2.30
**R11**  David has a $20.00 bill to pay for $11.26 in groceries.

Which of these calculations will find his change?

- **A**  \( $20.00 - $11.26 \)
- **B**  \( $20.00 + $11.26 \)
- **C**  \( $20.00 \div $11.26 \)

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**R12**  Claire has \( \underline{\text{}} \) cookies.

Raul has three more cookies than Claire has.

Which expression shows how many cookies Raul has?

- **A**  \( \underline{\text{}} + 3 \)
- **B**  \( 3 - \underline{\text{}} \)
- **C**  \( \underline{\text{}} - 3 \)
Do not continue until instructed to do so.
Below is a list of the Extended benchmarks (EB) for each released item found in this booklet. The chart contains the EB code, a brief description of what is measured, and the correct answer for each released item.

Full descriptions of the EB contained in the chart below are available for review and download at [www.mi.gov/mi-access](http://www.mi.gov/mi-access).

<table>
<thead>
<tr>
<th>Released Item Number</th>
<th>EB Code</th>
<th>Strand Or Abbreviated Extended GLCE Descriptor</th>
<th>Answer Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>F.11.EB01</td>
<td>Create, describe and extend number patterns</td>
<td>B</td>
</tr>
<tr>
<td>R2</td>
<td>G.11.EB16</td>
<td>Tell the amount of money</td>
<td>A</td>
</tr>
<tr>
<td>R3</td>
<td>G.11.EB17</td>
<td>Add and subtract money</td>
<td>B</td>
</tr>
<tr>
<td>R4</td>
<td>G.11.EB20</td>
<td>Read and interpret maps and grids</td>
<td>A</td>
</tr>
<tr>
<td>R5</td>
<td>G.11.EB20</td>
<td>Read and interpret maps and grids</td>
<td>C</td>
</tr>
<tr>
<td>R6</td>
<td>D.11.EB01</td>
<td>Read data</td>
<td>C</td>
</tr>
<tr>
<td>R7</td>
<td>N.11.EB04</td>
<td>Order numbers</td>
<td>C</td>
</tr>
<tr>
<td>R8</td>
<td>N.11.EB01</td>
<td>Read, write and count using whole numbers to 100,000</td>
<td>C</td>
</tr>
<tr>
<td>R9</td>
<td>N.11.EB10</td>
<td>Understand percentages as parts out of 100</td>
<td>C</td>
</tr>
<tr>
<td>R10</td>
<td>N.11.EB16</td>
<td>Compare and order decimal fractions</td>
<td>B</td>
</tr>
<tr>
<td>R11</td>
<td>N.11.EB20</td>
<td>Select appropriate numbers and operations</td>
<td>A</td>
</tr>
<tr>
<td>R12</td>
<td>A.11.EB03</td>
<td>Represent information using algebraic expressions and equations</td>
<td>A</td>
</tr>
</tbody>
</table>