**MICHIGAN STATE BOARD OF EDUCATION**

**STATEMENT OF ASSURANCE OF COMPLIANCE WITH FEDERAL LAW**

The Michigan State Board of Education complies with all Federal laws and regulations prohibiting discrimination and with all requirements and regulations of the U.S. Department of Education. It is the policy of the Michigan State Board of Education that no person on the basis of race, color, religion, national origin or ancestry, age, sex, marital status, or handicap shall be discriminated against, excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination in any program or activity for which it is responsible or for which it receives financial assistance from the U.S. Department of Education.

---

The *Grade 8 Functional Independence Mathematics Assessment* was administered for the first time in Fall 2005. 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 Fall 2009 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 Grade Level Content Expectations (EGLCE), 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 Fall 2009 Grade 8 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.

<table>
<thead>
<tr>
<th>Mathematics Strand</th>
<th>Number of Core Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numbers and Operations</td>
<td>17</td>
</tr>
<tr>
<td>Algebra</td>
<td>2</td>
</tr>
<tr>
<td>Measurement</td>
<td>10</td>
</tr>
<tr>
<td>Geometry</td>
<td>3</td>
</tr>
<tr>
<td>Data and Probability</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Core Items/Points</strong></td>
<td><strong>35</strong></td>
</tr>
<tr>
<td><strong>Released Items</strong></td>
<td><strong>10</strong> (Numbers vary by strand and topic.)</td>
</tr>
</tbody>
</table>

---

Copyright© 2009, held by the State Administrative Board, State of Michigan. All rights reserved. Printed in U.S.A. Permission is granted to schools, parents, government agencies and non-profit organizations in Michigan to reproduce and distribute this document for non-commercial use in helping Michigan educators and other citizens in interpreting and using the MI-Access assessment results.

For all instances other than identified in the previous paragraph, no part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior permission from the Office of Educational Assessment and Accountability.
**DIRECTIONS:** Read each question. Choose the **BEST** answer for each question.
R1  What is the rule for the pattern below?

\[4, \ 8, \ 12, \ 16, \ \ldots\]

A  add 2  
B  add 1  
C  add 4
Use the thermometer below to answer question R2.

![Thermometer](image)

**R2** Which temperature is shown?

- **A** 74°F
- **B** 76°F
- **C** 78°F
Use the picture below and ruler to answer question **R3**.

![Crayon Image]

**R3** How long is the crayon to the **nearest** quarter-inch?

- **A** 3 inches
- **B** 3 $\frac{1}{4}$ inches
- **C** 4 inches
Use the map below to answer question R4.

![Map of Clark County](image)

**R4** Which city is located in D-3?

A  Middletown  
B  Leesburg  
C  Chester
R5 What is $6 \times 17$?

A 23

B 52

C 102
Use the coins below to answer question **R6.**

![Coins Image]

**R6** How much money is shown?

- **A** 27¢
- **B** 37¢
- **C** 47¢
R7  Which set of fractions is listed in order from least to greatest?

A  \( \frac{1}{8}, \frac{5}{8}, \frac{2}{8}, \frac{7}{8} \)

B  \( \frac{2}{8}, \frac{7}{8}, \frac{1}{8}, \frac{5}{8} \)

C  \( \frac{1}{8}, \frac{2}{8}, \frac{5}{8}, \frac{7}{8} \)
**R8**  Matt is shipping 11 toys to a store.

He can fit 3 toys in each box.

**About** how many boxes does he need to ship all 11 toys?

A  2

B  3

C  4
R9 Juan cut a rope that is 100 feet long into 4 equal pieces.

What is the length of each piece?

A  40 feet
B  30 feet
C  25 feet
R10 A horse trots 8 miles per hour.

How far will it trot in 3 hours?

A 11 miles
B 16 miles
C 24 miles
Below is a list of the Extended Grade Level Content Expectations (EGLCE) for each released item found in this booklet. The chart contains the EGLCE code, a brief description of what is measured, and the correct answer for each released item.

Because the assessment was administered during the fall of the school year, only content from the previous grade level was measured on the assessment. For example, items eligible for the Grade 8 assessment will measure the Grade 7 EGLCE.

Full descriptions of the EGLCE contained in the chart below are available for review and download at www.mi.gov/mi-access.

<table>
<thead>
<tr>
<th>Released Item Number</th>
<th>EGLCE Code</th>
<th>STRAND or Abbreviated Extended GLCE Descriptor</th>
<th>Answer Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>R10</td>
<td>A.FO.07.FI.EG01</td>
<td>Solve applied problems involving rates</td>
<td>C</td>
</tr>
<tr>
<td>R4</td>
<td>G.LO.07.FI.EG02</td>
<td>Name locations using simple coordinate systems</td>
<td>B</td>
</tr>
<tr>
<td>R2</td>
<td>M.UN.07.FI.EG01</td>
<td>Use standard tools for measurement</td>
<td>C</td>
</tr>
<tr>
<td>R3</td>
<td>M.UN.07.FI.EG04</td>
<td>Measure lengths to the nearest quarter-inch</td>
<td>B</td>
</tr>
<tr>
<td>R6</td>
<td>M.PS.07.FI.EG14</td>
<td>Tell the amount of money in dollars and cents</td>
<td>A</td>
</tr>
<tr>
<td>R1</td>
<td>N.MR.07.FI.EG07</td>
<td>Find the next number in a simple repeating pattern</td>
<td>C</td>
</tr>
<tr>
<td>R5</td>
<td>N.FL.07.FI.EG13</td>
<td>Calculate simple products</td>
<td>C</td>
</tr>
<tr>
<td>R7</td>
<td>N.MR.07.FI.EG18</td>
<td>Compare and order fractions</td>
<td>C</td>
</tr>
<tr>
<td>R8</td>
<td>N.FL.07.FI.EG23</td>
<td>Apply estimation in solving problems</td>
<td>C</td>
</tr>
<tr>
<td>R9</td>
<td>N.MR.07.FI.EG25</td>
<td>Solve applied problems</td>
<td>C</td>
</tr>
</tbody>
</table>