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Overview

Grades Grades 1–8 (use Grade 8 form for Grades 9–12)
Administration Paper/pencil; group or individual
Working time 8 minutes
Scoring Use the Answer Key to score the problems, and then enter the Total Score.

Introduction

Mathematics Computation (M–COMP) is a brief, standardized test of math operations that are part of the typical curriculum at Grades 1 through 8, with national norms for Grades 1 through 12. (The norms at grades 9–12 are based on the Grade 8 forms.) You can give M–COMP individually, in small groups, or in full-class settings. There are 33 different test forms (probes) for each grade. These probes are intended to be used in the universal screening of all students at the beginning, middle, and end of the school year, and then used for frequent progress monitoring of students identified as at risk. They also may be used for survey-level (off-level) assessment, as explained in Introduction to aimsweb (available on the aimsweb site). You must follow all directions carefully to be able to use the normative (national, district, or school) data accurately in making decisions or drawing conclusions about a student’s performance. Altering the instructions to students, the presentation of the probes, or the time allowed for each probe, or using probes as teaching instruments invalidates any decisions made or conclusions reached about student performance. It is important that you (the examiner) become familiar with these administration directions before administering an M–COMP probe.

Administering and Scoring M–COMP

Choosing an M–COMP Probe

For universal screening (benchmark testing), use the designated probe for the student’s grade and the screening period. There is one probe for each screening period (Probe 1 for fall, Probe 2 for winter, and Probe 3 for spring).

For progress monitoring, use a different M–COMP probe each time. There are two ways to do this.

1. In aimsweb version 1.0, the Progress Monitor probes are in random order on the Score Entry screen. You may choose a different probe from the drop-down menu. In aimsweb 2.0, the Assess screen displays the probes that have not been administered to the student, as well as the probes the student has completed.

   OR

2. You may administer probes in numerical order.
Use the method that fits your workflow and ensures that you do not inadvertently give a student the same probe twice.

For survey-level assessment, see the guidelines in the *Introduction to aimsweb*.

**Materials You Will Need**

To administer an M–COMP probe, you will need a printed copy of the

- M–COMP Administration Directions and
- M–COMP probe and Answer Key for each student. The aimsweb Manager at your school will download a master copy of the probe and Answer Key from the aimsweb site. Photocopy these as needed.

*Please keep the probes and answer keys in a secure place until needed.*

You will also need

- a timer, clock, or watch with a second hand to monitor administration time; and
- sharpened pencils with erasers.

**General Administration Procedures**

Make sure each student has two sharpened pencils with erasers and have them remove everything else from their desks. Make sure that all visual aids in the room that might assist the students in answering mathematical questions are covered or removed prior to testing. Students may use scratch paper, but they should not need it because they are allowed to write in the test booklets.

Students are *not allowed* to use calculators, cell phones, etc.

Read the M–COMP Administration Directions in bold text aloud to the students. The directions are the same at all grades.

**Testing Students With Special Accommodations**

The general principles governing the use of accommodations in aimsweb administration for students with disabilities are described in the *Introduction to aimsweb*. Whenever normative data will be used to interpret performance, it is very important to adhere to the specific guidelines provided for each aimsweb measure to ensure that interpretations are accurate. A wider range of accommodations may be used during progress monitoring, as long as the accommodations are used consistently across the monitoring period.

Like any other test, M–COMP may be inappropriate for some students. For example, M–COMP requires paper-pencil test-taking skills, so using it with students who have severe motor problems may not be appropriate. Because the problems at Grade 5 and higher include a small amount of written text, M–COMP may not be appropriate for students at those grades who are not proficient in English and may not be appropriate for students with severe reading disabilities. When using M–COMP with students who have severe reading disabilities, interpret their scores carefully.
Accommodations for M–COMP Screening (Benchmarking)

The following accommodations are allowed for M–COMP screening (benchmarking):

- individual or small-group administration;
- enlarging the probe;
- visual aids, such as magnifiers (aids such as templates and straight edges are not permitted);
- special pencil or pencil grip;
- sign language, audio amplification, or repetition of the spoken directions when M–COMP is being introduced;
- environmental modifications (e.g., special lighting, adaptive furniture).

Any accommodations made during screening must be documented in the student’s record.

The following accommodations are not allowed during screening:

- extending the administration time,
- providing feedback during administration,
- providing practice administrations, and
- the use of calculators by students.

Accommodations for M–COMP Progress Monitoring

In addition to the accommodations allowed for screening, other appropriate accommodations (including extending the administration time) may be made during M–COMP progress monitoring as long as

- the accommodations are applied consistently for the student throughout the progress monitoring period, and
- interpretations of the student’s performance are not based on normative data.

Document any accommodation made for the student in the aimsweb system (under “Program Description”), so that anyone interpreting the report understands the conditions under which progress monitoring was conducted.

Use of a calculator is not permitted for progress monitoring because it changes the nature of the task.
M–COMP ADMINISTRATION DIRECTIONS

These directions are for group administration—adapt as needed for individual administration.

Say to the students:

**We’re going to take an 8-minute math test.**

**Read the problems carefully and work each problem in the order presented, starting at the first problem on the page and working across the page from left to right. Do not skip around.**

If you do not understand how to do a problem, mark it with an X and move on. Once you have tried all of the problems in order, you may go back to the beginning of the worksheet and try to complete the problems you marked. Although you may show your work and use scratch paper if that is helpful for you in working the problems, you may not use calculators or any other aids. Keep working until you have completed all of the problems or until I tell you to stop.

**Do you have any questions?**

Answer any questions the students may have, then hand them their probes, and say:

**Here are your tests.**

**Write your name, your teacher’s name, and the date on the first page only in the space provided. Do not start working until I tell you to begin.**

Allow the students time to write their information. When everyone in the class is done, say:

**Begin. Start timing.**

Walk around the room to make sure that the students are working the problems in order. If you notice that a student is skipping ahead without attempting each problem, say:

**Try to work each problem. Do not skip ahead unless you do not know how to work a problem.**

If a student asks a question or requests clarification, say:

**I can’t help you. Work the problem as best you can. If you don’t understand the problem, you may move on to the next problem.**

After 8 minutes, say:

**Stop and put down your pencil.**

Remind them to make sure they have their name, the teacher’s name, and the date written on their probe in the correct place. Then collect the probes and any scratch paper.
**M–COMP Scoring Directions**

**Using the Answer Key**

Write the student’s name and the date on the Answer Key.

The Answer Key shows the correct answer to each problem and the score points for each correct response. Some problems are worth more score points than others. (See Figure 1.)

- If the response is correct, circle the number of points earned for that item.
- If the response is incorrect or crossed out, circle a score of 0 for that item.
- If the student did not write a response (or only wrote an X), do not assign a score to the item.

When you have completed scoring, sum the circled points in each Correct column, then add these subtotals together to obtain the total score for that probe.

### Grade 4, Probe 1 Answer Key

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Answer</th>
<th>Correct</th>
<th>Incorrect</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>31</td>
<td>10</td>
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<tr>
<td>2.</td>
<td>4</td>
<td>20</td>
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<td>648</td>
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<tr>
<td>5.</td>
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<tr>
<td>6.</td>
<td>205</td>
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<tr>
<td>7.</td>
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<tr>
<td>8.</td>
<td>64</td>
<td>1</td>
<td>0</td>
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<tr>
<td>9.</td>
<td>357</td>
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<td>0</td>
</tr>
<tr>
<td>10.</td>
<td>18</td>
<td>20</td>
<td>0</td>
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<tr>
<td>11.</td>
<td>478</td>
<td>10</td>
<td>0</td>
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<tr>
<td>12.</td>
<td>186</td>
<td>20</td>
<td>0</td>
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<td>310</td>
<td>10</td>
<td>0</td>
</tr>
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<td>12</td>
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<td>30</td>
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<td>17.</td>
<td>9</td>
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<td>18.</td>
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<th>Item No.</th>
<th>Answer</th>
<th>Correct</th>
<th>Incorrect</th>
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</thead>
<tbody>
<tr>
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<td>$\frac{7}{9}$</td>
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<td>0</td>
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<td>11.9</td>
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<td>63</td>
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<td>7</td>
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<td>13</td>
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<td>25.</td>
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</tr>
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<td>0</td>
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<td>27.</td>
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<td>1014</td>
<td>1</td>
<td>0</td>
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<td>29.</td>
<td>1009</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
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<td>3</td>
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<tr>
<td>32.</td>
<td>2.9</td>
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<td>677</td>
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<tr>
<td>35.</td>
<td>$\frac{9}{10}$</td>
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<td>36.</td>
<td>7627</td>
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</tr>
<tr>
<td>37.</td>
<td>$\frac{2}{5}$</td>
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<td>38.</td>
<td>30 r1; 30.25; 30 $\frac{1}{4}$</td>
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Subtotal 1: 20

Subtotal 2: 13

**TOTAL** = Subtotal 1 + Subtotal 2: 33

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**Figure 1 Example of a Completed Answer Key**
Item Scoring Rules

1. **The Answer Key includes the most common correct answers for each problem.** Give credit for any response that is mathematically correct and satisfies the requirement of the problem, even if the form of the response is different from those listed on the Answer Key.

2. **Score according to the student’s final answer.** If an answer is crossed out, do not count it as correct.

3. **The answer does not need to be written in the blank,** as long as it is clear that it was the student’s final answer.

4. **If the response is hard to read, but can be determined, score the answer as appropriate.** If the response is illegible and cannot be determined with confidence, score it as incorrect.

5. **If a digit is reversed, but the digit the student intended is obvious, score according to the intended response.** Rotation or reversal of numerals is acceptable as long as the intent is clear (e.g., if the correct answer is “6” and the student wrote “9,” do not give credit, even though it may have been a rotation error).

Entering Scores in the aimsweb System

After calculating the Total Score, enter it into the aimsweb system. See the Aimsweb Software Guide for detailed instructions on how to enter scores.