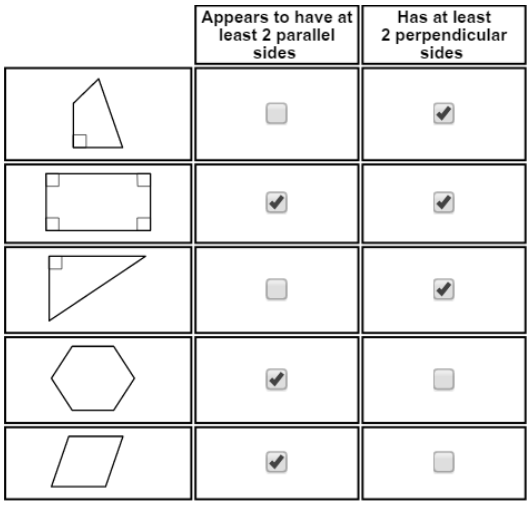
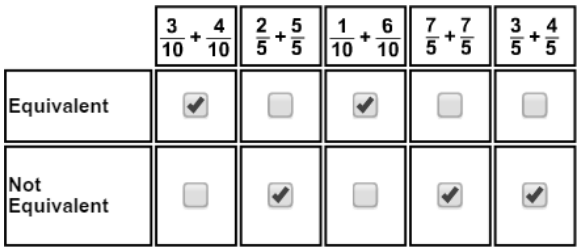
# LEAP 2025 Grade 4 Mathematics
# CBT Practice Test Answer Key

This document contains the answer keys and rubrics for the LEAP 2025 Grade 4 Mathematics Computer-Based Practice Test.

| Session 1 | | | | |
|---|---|---|---|---|
| **Task #** | **Task Type** | **Value (points)** | **Key** | **Alignment** |
| 1 | I | 1 | D | 4.NF.B.4b |
| 2 | I | 1 | 108 | 4.OA.A.2 |
| 3 | I | 1 | A, E | 4.NF.B.3a |
| 4 | I | 1 | 331 | 4.NBT.B.4 |
| 5 | I | 1 | A | 4.MD.C.6 |
| 6 | I | 1 | D | 4.NBT.A.2 |
| 7 | I | 1 |  | 4.G.A.2 |
| 8 | I | 1 | C | 4.NF.B.4c |
| 9 | I | 1 | 12 | 4.MD.A.3 |
| 10 | I | 1 | 161 = 7 × 23 | 4.OA.A.1 |
| 11 | I | 2 | Part A: B<br>Part B: C | 4.NF.C.5 |
| 12 | II | 4 | Part A: rubric<br>Part B: rubric | LEAP.II.4.5 (3.MD.C) |
| 13 | I | 1 | C | 4.MD.C.6 |
| 14 | III | 3 | Part A: 77<br>Part B: rubric | LEAP.III.4.1 (4.OA.A.3, 4.NBT.B.4) |
| 15 | I | 1 | 40312 | 4.NBT.B.5 |

| Session 2 | | | | |
|---|---|---|---|---|
| **Task #** | **Task Type** | **Value (points)** | **Key** | **Alignment** |
| 16 | I | 1 | 12 | 4.OA.A.2 |
| 17 | I | 1 | 0.4 meter [>] 0.04 meter<br>0.3 meter [<] 0.5 meter<br>0.65 meter [>] 0.61 meter | 4.NF.C.7 |
| 18 | I | 1 | 123 | 4.NBT.B.6 |
| 19 | I | 2 | Part A: A<br>Part B: D | 4.NF.B.3d |
| 20 | I | 1 | B, C, E | 4.G.A.3 |
| 21 | I | 1 | 11585 | 4.NBT.B.4 |
| 22 | I | 2 | Part A: C<br>Part B: D | LEAP.I.4.1 (4.NF.A) |
| 23 | I | 1 | B, D, E | 4.OA.B.4d |
| 24 | I | 1 | 840 | LEAP.I.4.2 (4.NBT.B.5, 4.OA.A) |
| 25 | I | 1 | A | 4.NBT.A.1 |
| 26 | II | 3 | rubric | LEAP.II.4.7 (4.NF.B.4a, 4.NF.B.4b) |
| 27 | I | 1 | C | 4.MD.B.4 |
| 28 | I | 1 | C | 4.MD.C.5c |
| 29 | III | 3 | rubric | LEAP.III.4.1 (4.OA.A.2, 4.NF.B.4c) |

| Session 3 | | | | |
|---|---|---|---|---|
| **Task #** | **Task Type** | **Value (points)** | **Key** | **Alignment** |
| 30 | I | 1 | $\frac{5}{10}$ $\frac{4}{8}$ $\frac{2}{4}$ | 4.NF.A.1 |
| 31 | I | 1 | 2741 | LEAP.I.4.7 (4.NBT.B.4, 4.OA.A) |

| Session 3 | | | | |
|---|---|---|---|---|
| **Task #** | **Task Type** | **Value (points)** | **Key** | **Alignment** |
| 32 | I | 1 |  | 4.NF.B.3b |
| 33 | I | 1 | B, E | 4.NBT.A.2 |
| 34 | I | 1 | 48 | 4.MD.A.1 |
| 35 | I | 1 | B | LEAP.I.4.4 (4.NBT.B.6, 4.OA.A) |
| 36 | I | 1 | 0.09 0.8 | 4.NF.C.6 |
| 37 | I | 1 | 4355 | 4.NBT.B.4 |
| 38 | I | 1 | $^5/_6$ yard > $^3/_4$ yard<br>$^5/_6$ yard < $^7/_8$ yard<br>$^5/_6$ yard = $^{10}/_{12}$ yard<br>$^5/_6$ yard > $^2/_3$ yard | 4.NF.A.2 |
| 39 | I | 1 | 8 24 64 80 | 4.OA.B.4c |
| 40 | I | 1 | 13104 | 4.OA.A.3 |
| 41 | II | 3 | rubric | LEAP.II.4.6 (4.NF.B.3c) |
| 42 | I | 1 | D | 4.OA.A.3 |
| 43 | III | 6 | Part A: rubric<br>Part B: rubric | LEAP.III.4.2 (3.OA.A.3, 3.OA.D.8) |

## RUBRICS

<table>
<tr><th colspan="2">Task #12</th></tr>
<tr><th colspan="2">Part A</th></tr>
<tr><th>Score</th><th>Description</th></tr>
<tr><td>3</td><td>Student response includes the following 3 elements:<br>• Reasoning component: 3 points<br>o Identifies error of overlapping tiles on corners<br>o Identifies error of not completely covering the rectangle with tiles<br>o Explains a way to correctly cover the rectangle and determines the area of the rectangle is 21 square inches<br><br>Sample Student Response:<br>One error the student made was she covered each corner of the rectangle twice. Another error she made was she didn’t completely cover the entire rectangle.<br><br>To correctly determine the area, you should cover the entire rectangle with squares without overlapping. If I do this, I would cover the top and bottom edges with 7 tiles each, then I could add another 7 tiles to cover the middle section of the rectangle. In all, I used 21 tiles to cover the entire rectangle with no overlaps. This means that the area of the rectangle is 21 square inches.<br>7 + 7 + 7 = 21<br>Or other valid explanation.<br><br>Notes:<br>• If the error made is shown or stated as the perimeter is being found, not area, a point can be given for either the first or second element, but not a point for each.<br>• Work that correctly shows the area of the rectangle addresses the requirement to explain the way to cover the rectangle.</td></tr>
<tr><td>2</td><td>Student response includes 2 of the 3 elements.</td></tr>
<tr><td>1</td><td>Student response includes 1 of the 3 elements.</td></tr>
<tr><td>0</td><td>Student response is incorrect or irrelevant.</td></tr>
<tr><th colspan="2">Part B</th></tr>
<tr><th>Score</th><th>Description</th></tr>
<tr><td>1</td><td>Student response includes the following element:<br>• Computation component: 1 point<br>o Valid multiplication sentence that shows how to find the area of the rectangle shown<br>Sample Student Response:<br>7 × 3 = 21</td></tr>
<tr><td>0</td><td>Student response is incorrect or irrelevant.</td></tr>
</table>

<table>
<tr><th>Task #14</th></tr>
<tr><th>Part A</th></tr>
</table>

| Score | Description |
|---|---|
| **1** | Student response includes the following element:<br>• **Computation component**: 1 point<br>o Correct number of sticks of clay, 77 |
| **0** | Student response is incorrect or irrelevant. |
| | **Part B** |
| **Score** | **Description** |
| **2** | Student response includes the following 2 elements:<br>• **Modeling component:** 1 point<br>o Correct work or explanation for how to find the total cost of the remaining boxes of clay<br>• **Computation component**: 1 point<br>o Correct cost, $112<br><br>Sample Student Response:<br>77 ÷ 10 = 7, with a remainder of 7 so the teacher needs 8 boxes.<br>8 × 14 = 112<br>$112<br>Or other valid explanation. |
| **1** | Student response contains 1 of the 2 elements. |
| **0** | Student response is incorrect or irrelevant. |

| Task #26 | |
|---|---|
| **Score** | **Description** |
| **3** | Student response includes the following 3 elements:<br>• **Reasoning component**: 2 points<br>o Correct explanation of how to find $\frac{5}{12}$ using the number line<br>o Correct explanation of how to find $2 \times \frac{5}{12}$ using the number line<br>• **Computation component**: 1 point<br>o Correct product, $\frac{10}{12}$ or equivalent<br><br>Sample Student Response:<br>I know that each tick mark on the number line is equivalent to $\frac{1}{12}$, so to find $\frac{5}{12}$, I would count 5 of the tick marks.<br>Then to find $2 \times \frac{5}{12}$, I would count $\frac{5}{12}$ two times starting at zero on the number line. I would land on $\frac{5}{6}$, which is the same as $\frac{10}{12}$. The product is $\frac{10}{12}$.<br><br>Or other valid explanation.<br><br>Note: Student responses must provide explanations to receive the reasoning component points. Simply identifying the locations of $\frac{5}{12}$ and $\frac{10}{12}$ is not sufficient for reasoning credit. |
| **2** | Student response includes 2 of the 3 elements. |
| **1** | Student response includes 1 of the 3 elements. |
| **0** | Student response is incorrect or irrelevant. |

| Task #29 | |
|---|---|
| **Score** | **Description** |
| **3** | Student response includes the following 3 elements:<br>• **Computation component**: 2 points<br>o Correct amount of paint used for 1 shirt, $\frac{2}{3}$ ounce<br>o Correct amount of paint used for the poster and 2 shirts, $\frac{10}{3}$ ounces or equivalent<br>• **Modeling component**: 1 point<br>o Correct work or explanation for both the amount of paint used for 1 shirt and for the amount of paint used for the poster and 2 shirts<br><br>Sample Student Response:<br>I found the number of tubes used for each shirt by figuring out what number times 3 is equal to 6. Since $3 \times 2 = 6$, I now know that for each shirt, 2 tubes are used. To find the number of ounces in 2 tubes, I solved $2 \times \frac{1}{3} = \frac{2}{3}$. To find the number of ounces used for 1 poster, I solved $6 \times \frac{1}{3} = \frac{6}{3}$. For the total number of ounces used for 1 poster and 2 shirts, I added $\frac{2}{3} + \frac{2}{3} + \frac{6}{3} = \frac{10}{3}$. So the total number of ounces used for the poster and 2 shirts is $\frac{10}{3}$.<br><br>Notes:<br>• Student may earn the computation point for an incorrect amount of paint used for the poster and 2 shirts if it is based on an incorrect amount of paint used for 1 shirt with the correct work shown.<br>• Student may earn the modeling point even if computation is incorrect as long as he or she then shows valid work or explanation. |
| **2** | Student response includes 2 of the 3 elements. |
| **1** | Student response includes 1 of the 3 elements. |
| **0** | Student response is incorrect or irrelevant. |

| Task #41 | |
|---|---|
| **Score** | **Description** |
| **3** | Student response includes the following 3 elements:<br>• **Reasoning component**: 2 points<br>o Correct explanation of errors in work shown<br>o Correct work or explanation given for finding correct solution<br>• **Computation component**: 1 point<br>o Correct solution, $\frac{18}{4}$ or equivalent<br><br>Sample Student Response:<br>The fractions are incorrectly added. The student should not add together the values in the denominator.<br>The correct way to do the problem is:<br>$1\frac{3}{4} + 2\frac{3}{4} = \frac{4}{4} + \frac{3}{4} + \frac{8}{4} + \frac{3}{4}$<br>$= \frac{4+3+8+3}{4}$<br>$= \frac{18}{4}$<br>Or other valid explanation or work. |
| **2** | Student response includes 2 of the 3 elements. |
| **1** | Student response includes 1 of the 3 elements. |
| **0** | Student response is incorrect or irrelevant. |

| Task #43 | |
|---|---|
| **Part A** | |
| **Score** | **Description** |
| **3** | Student response includes the following 3 elements:<br>• **Modeling component**: 2 points<br>o Correct work or explanation to find the total number of miles Carl rides on Friday<br>o Correct work or explanation to find the total number of miles Carl rides in three days<br>• **Computation component**: 1 point<br>o Correct answer, 30<br><br>Sample Student Response:<br>Carl rides twice as far Friday as he does on Thursday. $7 \times 2 = 14$.<br>Carl rides $7 + 14 + 9 = 30$ miles in all.<br><br>Notes:<br>• A variety of explanations are possible. As long as the student explains how to find the total number of miles Carl rides on Friday and in the three days, credit should be given.<br>• If a computation mistake is made, credit cannot be given for computation but can be given for a valid explanation. |
| **2** | Student response includes 2 of the 3 elements. |
| **1** | Student response includes 1 of the 3 elements. |
| **0** | Student response is incorrect or irrelevant. |

| Task #43 | |
|---|---|
| **Part B** | |
| **Score** | **Description** |
| **3** | Student response includes the following 3 elements:<br>• **Modeling component**: 2 points<br>o Correct work or explanation to find the number of total additional miles Carl must ride.<br>o Correct work or explanation to find the number of additional miles Carl should ride each day.<br>• **Computation component**: 1 point<br>o Correct answer, 2<br><br>Sample Student Response:<br>For Carl to ride 36 miles in the next 3 days, he needs to ride 36 – 30 = 6 more miles.<br>For Carl to ride 6 more miles in 3 days, he must ride 6 ÷ 3 = 2 miles farther each day.<br><br>Notes:<br>• A variety of explanations are valid. As long as the student uses a valid method to solve the problem, credit should be given.<br>• If a computation mistake is made, credit cannot be given for computation but should be given for a valid explanation of how to solve the problem.<br>• If a mistake was made in Part A but carried through Part B correctly, credit can be given for Part B. |
| **2** | Student response includes 2 of the 3 elements. |
| **1** | Student response includes 1 of the 3 elements. |
| **0** | Student response is incorrect or irrelevant. |