

This document contains the answer keys and rubrics for the LEAP 2025 Grade 5 Mathematics Practice Test.

Session 1				
Task #	Task Type	Value (points)	Key	Alignment
1	I	1	65	5.OA.A.1
2	I	1	<p>The product of $\frac{3}{5}$ and 4 is <input type="text" value="less than"/> 4.</p> <p>The product of $1\frac{1}{2}$ and 2 is <input type="text" value="greater than"/> 2.</p> <p>The product of $\frac{5}{2}$ and $\frac{13}{4}$ is <input type="text" value="greater than"/> $\frac{13}{4}$.</p>	5.NF.B.5a
3	I	1	B	5.NF.A.2a
4	I	1	2947994	5.NBT.B.5
5	I	1	546.208	5.NBT.A.3a
6	I	1	104	5.MD.C.5b
7	I	1	C	5.NBT.B.7
8	I	1	D	5.MD.B.2
9	I	1	A	5.NF.B.4b

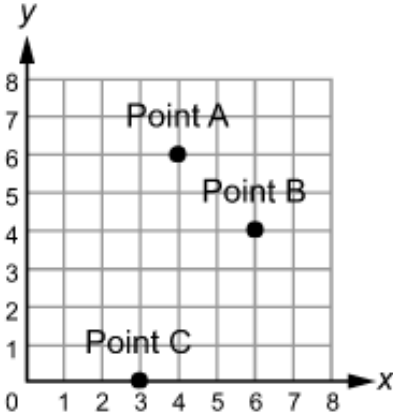
Session 1				
Task #	Task Type	Value (points)	Key	Alignment
10	I	1	<pre> graph BT Q[quadrilaterals] -- are always --> P[parallelograms] P -- are always --> R[rhombuses] P -- are always --> RE[rectangles] R -- are always --> S[squares] RE -- are always --> S </pre> <p>The positions of rectangles and rhombuses may be switched.</p>	5.G.B.4
11	I	1	A, D	5.NBT.A.4
12	III	3	Part A: rubric Part B: rubric Part C: 31.25*	LEAP.III.5.1 (5.NBT.B.7)
13	I	1	B	5.NBT.B.6
14	I	2	Part A: C Part B: 75	5.MD.C.5c
15	II	4	rubric	LEAP.II.5.6 (5.NBT.B.6)

Session 2				
Task #	Task Type	Value (points)	Key	Alignment
16	I	1	B, C, D	5.G.B.3
17	I	1	D	5.NF.A.1
18	I	1	C	5.G.A.1
19	I	1	A	5.OA.B.3
20	I	1	B, E	5.NF.A.2b
21	I	1	C	5.NF.A.1
22	I	1	0.525	5.NBT.B.7

* This is not machine-scored because the answer is dependent on the student response to part B.

Session 2				
Task #	Task Type	Value (points)	Key	Alignment
23	I	2	Part A: D Part B: A	LEAP.I.5.2 (5.NF.A)
24	II	3	rubric	LEAP.II.5.8 (5.NF.A.2)
25	I	1	A	5.NF.B.4b
26	I	1	27	5.NF.B.7c
27	I	1	4.408 <input type="text" value=">"/> four and forty-eight thousandths six hundred ninety-one and five hundredths <input type="text" value=">"/> $6 \times 100 + 9 \times 10 + 1 \times 1 + 8 \times \frac{1}{1,000}$	5.NBT.A.3b
28	I	2	Part A: 480 Part B: 3	5.MD.A.1
29	III	3	rubric	LEAP.III.5.1 (5.NF.B.4c, 5.NF.B.4d)

Session 3										
Task #	Task Type	Value (points)	Key	Alignment						
30	I	1	2.7	5.NBT.B.7						
31	I	1	D	5.NF.B.3						
32	I	1	C	5.NF.B.4						
33	I	1	A	5.NF.B.6						
34	I	1	76531	5.NBT.B.5						
35	I	1	D	5.NF.B.3						
36	I	1	B	5.MD.C.4						
37	I	1	B	5.NBT.A.1						
38	I	1	3	5.NBT.A.2						
39	I	1	5120	5.MD.C.5b						
40	I	1	<table border="1"> <tr> <td>the sum of 2 and 4 subtracted from 9</td> <td>add 2 and 4, then subtract 9</td> <td>subtract 2 from 9, then add 4</td> </tr> <tr> <td>$9 - (2 + 4)$</td> <td>$2 + 4 - 9$</td> <td>$9 - 2 + 4$</td> </tr> </table>	the sum of 2 and 4 subtracted from 9	add 2 and 4, then subtract 9	subtract 2 from 9, then add 4	$9 - (2 + 4)$	$2 + 4 - 9$	$9 - 2 + 4$	5.OA.A.2
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$9 - (2 + 4)$	$2 + 4 - 9$	$9 - 2 + 4$								

Session 3				
Task #	Task Type	Value (points)	Key	Alignment
41	I	1		5.G.A.1
42	III	6	Part A: rubric Part B: rubric Part C: 3869 [†]	LEAP.III.5.2 (4.MD.A.3)
43	II	3	rubric	LEAP.II.5.7 (5.NF.B.7a, 5.NF.B.7b)

[†] This is not machine-scored because the answer is dependent on the student response to part B.

RUBRICS

Task #12	
Part A	
Score	Description
1	<p>Student response includes the following element.</p> <ul style="list-style-type: none"> • Modeling component: 1 point <ul style="list-style-type: none"> ○ Correct expression for the cost of the bracelet <p>Sample Student Response: $0.05 \times 25 + 0.45 \times 4$</p> <p>Note: Any valid expression can receive credit.</p>
0	Student response is incorrect or irrelevant.
Part B	
Score	Description
1	<p>Student response includes the following element.</p> <ul style="list-style-type: none"> • Modeling component: 1 point <ul style="list-style-type: none"> ○ Correct expression for the cost of the necklaces <p>Sample Student Response: $(0.05 \times 48 + 0.45 \times 1) \times 2$</p> <p>Note: Any valid expression can receive credit.</p>
0	Student response is incorrect or irrelevant.
Part C	
Score	Description
1	<p>Student response includes the following element.</p> <ul style="list-style-type: none"> • Computation component: 1 point <ul style="list-style-type: none"> ○ Correct amount of money Katie had left after purchasing supplies, \$31.25 <p>Note: If a mistake is made in Part A and/or Part B but carried through to Part C correctly, credit can be given for Part C.</p>
0	Student response is incorrect or irrelevant.

Task #15

Score	Description
4	<p>Student response includes the following 4 elements:</p> <ul style="list-style-type: none"> • Computation component: 2 points <ul style="list-style-type: none"> ○ Correct numbers for each letter in the model ○ Correct value for quotient, 873 remainder 2 • Reasoning component: 2 points <ul style="list-style-type: none"> ○ Correct explanation for finding the numbers in the model ○ Correct explanation or work to show multiplication check <p>Sample Student Response:</p> <p>The value of M is 6,400 because $8 \times 800 = 6,400$. The value of N is 70 because $8 \times 70 = 560$. Then $6,400 + 560 = 6,960$. So there are 26 left. Since $8 \times 3 = 24$, the value of P is 3 and the value of Q is 24. There are 2 left over, so R is 2.</p> <p>The value of $6,986 \div 8$ is 873 with a remainder of 2.</p> <p>To check my multiplication, first multiply 873 by 8. Then add 2 to the product.</p> $873 \times 8 = 6,984$ $6,984 + 2 = 6,986$ <p>Note: If a student has a computation error, points can still be awarded for correct reasoning.</p>
3	Student response includes 3 of the 4 elements.
2	Student response includes 2 of the 4 elements.
1	Student response includes 1 of the 4 elements.
0	Student response is incorrect or irrelevant.

Task #24

Score	Description
3	<p>Student response includes the following 3 elements:</p> <ul style="list-style-type: none"> • Reasoning component: 2 points <ul style="list-style-type: none"> ○ Identification of Leah’s mistake ○ Correct work shown for adding $\frac{2}{3} + \frac{1}{2} + \frac{5}{12}$ • Computation component: 1 point <ul style="list-style-type: none"> ○ Correct answer, $\frac{19}{12}$ or equivalent <p>Sample Student Response:</p> <p>Leah used the wrong numerators. To add fractions with different denominators, you have to find a common denominator. Then you convert each fraction to an equivalent fraction using the common denominator. Then you add the numerators together and put the result as the numerator.</p> $\frac{2}{3} + \frac{1}{2} + \frac{5}{12}$ $= \frac{8}{12} + \frac{6}{12} + \frac{5}{12}$ $= \frac{8+6+5}{12}$ $= \frac{19}{12}$
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	<p>Student response includes the following 3 elements:</p> <ul style="list-style-type: none"> • Modeling component: 2 points <ul style="list-style-type: none"> ○ Correct explanation of how to use the model to find the size of each section of the garden. ○ Correct use of common denominators to write an equation to find the difference between the two sections of the garden. • Computation component: 1 point <ul style="list-style-type: none"> ○ Correct answer, $\frac{1}{16}$ <p>Sample Student Response:</p> <p>Since there are 16 squares in the first half of the model and 3 are shaded, this means that the area of the carrot section is $\frac{3}{16}$ square yard. Since there are 4 squares in the second half of the model and 1 is shaded, this means that the area of the pea section is $\frac{1}{4}$ square yard.</p> $\frac{4}{16} - \frac{3}{16} = \frac{1}{16}$ <p>$\frac{1}{16}$ square yard</p> <p>Notes:</p> <ul style="list-style-type: none"> • A variety of explanations are possible. As long as the explanation shows a clear understanding of using the model to find the size of each section, credits should be awarded. • A variety of equations are possible. As long as the equation can be used to represent the problem, credit should be awarded. • If a student uses the model for peas and divides it into sixteenths in order to use the common denominator, the student should be awarded both modeling points since the modeling for two steps was completed in one step.
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 #42

Part A

Score	Description
2	<p>Student response includes the following 2 elements:</p> <ul style="list-style-type: none"> • Computation component: 1 point <ul style="list-style-type: none"> ○ Correct answer, 486 • Modeling component: 1 point <ul style="list-style-type: none"> ○ Correct equation to model the area <p>Sample Student Response: $18 \times 27 = g$ $g = 486$ square feet</p>
1	Student response includes 1 of the 2 elements.
0	Student response is incorrect or irrelevant.

Part B

Score	Description
3	<p>Student response includes the following 3 elements:</p> <ul style="list-style-type: none"> • Modeling component: 3 points <ul style="list-style-type: none"> ○ Correct expression to represent the cost of the fence and gate ○ Correct explanation of the expression ○ Correct work or explanation to find the total cost <p>Sample Student Response: $43 \times (18 + 18 + 27 + 27 - 3) + 128$ $(18 + 18 + 27 + 27 - 3)$ is needed to find the perimeter of the lawn minus the gate to find the length of fence needed The length of the fence is multiplied by the cost of the fence and then the cost of the gate is added to get the total cost.</p> <p>Note: The term <i>perimeter</i> does not have to be used.</p>
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.

Part C

Score	Description
1	<p>Student response includes the following element:</p> <ul style="list-style-type: none"> • Computation component: 1 point <ul style="list-style-type: none"> ○ \$3,869 <p>Note: If a mistake is made in Part B but carried through to Part C correctly, credit can be given for Part C.</p>
0	Student response is incorrect or irrelevant.

Task #43

Score	Description
3	<p>Student response includes the following 3 elements:</p> <ul style="list-style-type: none"> • Reasoning component: 2 points <ul style="list-style-type: none"> ○ Correct label for point A, $\frac{1}{2}$ hour or equivalent ○ Correct explanation of how to use the number line to solve the problem • Computation component: 1 point <ul style="list-style-type: none"> ○ Correct fraction of an hour spent per chore, $\frac{1}{10}$ or equivalent <p>Sample Student Response:</p> <p>Point A should have the label $\frac{1}{2}$ hour.</p> <p>The number line is divided from 0 to $\frac{1}{2}$ in 5 equal sections because there are 5 chores. It would take 10 of these sections to divide the number line from 0 to 1. Each section represents the time she can spend on one chore. So she can spend $\frac{1}{10}$ of an hour on each chore.</p>
2	Student response includes 2 of the 3 elements.
1	Student response includes 1 of the 3 elements.
0	The response is incorrect or irrelevant.