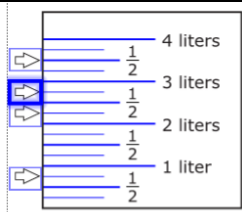



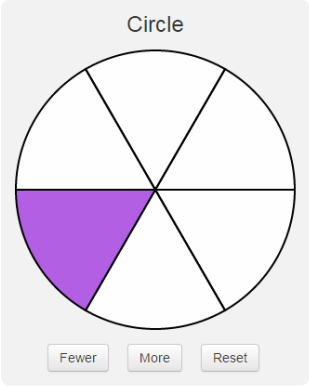
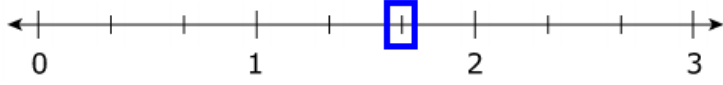
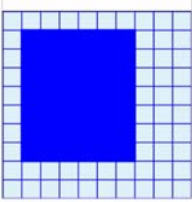
Mathematics – Grade 3
Practice Test Answer and Alignment Document
Online ABO

The following pages include the answer key for all machine-scored items, followed by the rubrics for the hand-scored items.




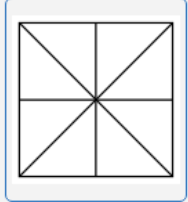
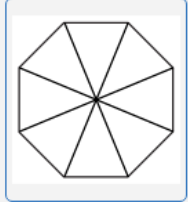
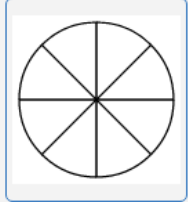
- The rubrics show sample student responses. Other valid methods for solving the problem can earn full credit unless a specific method is required by the item.
- In items where the scores are awarded for full and partial credit, the definition of partial credit will be confirmed during range-finding (reviewing sets of real student work).
- If students make a computation error, they can still earn points for reasoning or modeling.

Unit 1

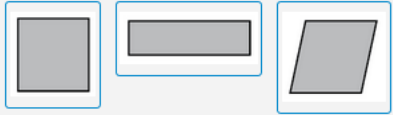
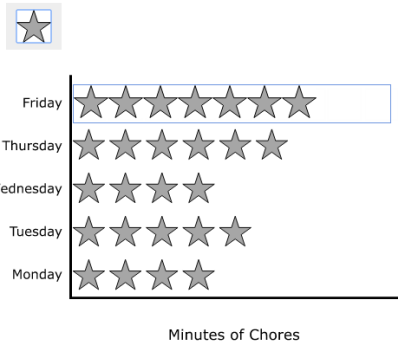
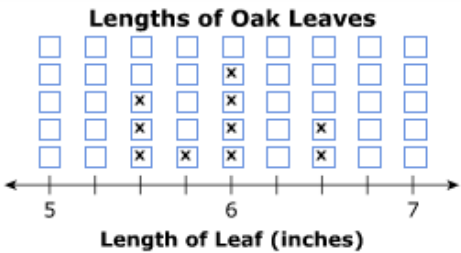
Item Number	Answer Key	Evidence Statement Key/Content Scope
1.	A, D	3.OA.1
2.		3.MD.2-1
3.	Part A: see rubric Part B: 197 Part C: see rubric	3.D.2/2.OA.1
4.	A, C, E	3.NF.1
5.		3.NF.3c
6.	Part A: see rubric Part B: see rubric	3.C.4-2/3.OA.B.06
7.	Part A: 632	3.Int.2

	Part B: 9	
8.	 <p>or any of one of the 6 equal sections is shaded</p>	3.G.2
9.	30	3.MD.1-2
10.		3.NF.2
11.	63, 6, 36, 8, 6	3.OA.7-2
12.	<p>Part A:</p>  <p>Part B: see rubric</p>	3.D.1/3.OA.8

Unit 2

Item Number	Answer Key	Evidence Statement Key/Content Scope
1.	B, C, E	3.OA.2
2.	<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>4 Feet </p> <p>6 Feet</p> <p>24 Square Feet</p> </div> <div style="text-align: center;"> <p>4 Feet </p> <p>7 Feet</p> <p>28 Square Feet</p> </div> <div style="text-align: center;"> <p>3 Feet </p> <p>9 Feet</p> <p>27 Square Feet</p> </div> </div>	3.MD.7b-1
3.	C	3.OA.3-1
4.	<div style="border: 1px solid gray; padding: 10px; display: flex; justify-content: space-around; align-items: center;">    </div>	3.G.2
5.	8, 32, 7, 35	3.OA.4
6.	56	3.NBT.2
7.	Part A: see rubric Part B: B, F	3.D.1/3.OA.3 and 3.NF.1
8.	Part A: C Part B: 50	3.MD.3-3
9.	Part A: see rubric Part B: see rubric	3.C.1-3/3.MD.7

Unit 3

Item Number	Answer Key	Evidence Statement Key/Content Scope
1.		3.G.1
2.	A, C, D	3.NF.3d
3.	7	3.MD.8
4.		3.MD.3-1
5.	See rubric	3.C.6-1/3.NF.2b
6.	240	3.NBT.3
7.	6	3.OA.3-3
8.	B	3.MD.1-1
9.	Part A: 420 Part B: 114	3.Int.5
10.	B, D, E	3.OA.7-1
11.	B, C, E	3.NF.3b-1
12.		3.MD.4

Rubrics start on the next page.

Unit 1 #3 Rubric Part A

Score	Description
3	<p>Student response includes each of the following 3 elements.</p> <ul style="list-style-type: none"> • Computation component: 85 pennies • Modeling component: shows correct use of addition • Modeling component: shows correct use of subtraction <p>Sample Solution 1: Addition of pennies in two jars ($16 + 94 = 110$) and then subtraction of pencil price from that sum ($110 - 25 = 85$).</p> <p>Sample Solution 2: Subtraction of pencil price from pennies in one jar ($94 - 25 = 69$) and then addition of the pennies in the other jar to the difference ($69 + 16 = 85$).</p> <p>Notes:</p> <ul style="list-style-type: none"> ○ Student can get credit for both parts with a single equation such as $16 + 94 - 25 = 85$. ○ Student does not need to show an equation, but if an equation is used, the equation must be correct. (e.g., $16 + 94 = 110 - 25 = 85$ is considered a nonsense equation and is NOT acceptable.)
2	Student response includes 2 of the 3 elements. Or, the student has a computation error, but provides a valid strategy.
1	Student response includes 1 of the 3 elements.
0	Student response is incorrect or irrelevant.

Unit 1 #3 Rubric Part B

Score	Description
1	Computation component: 197
0	Student response is incorrect.

Unit 1 #3 Rubric Part C

Score	Description
2	<p>Student response includes each of the following 2 elements.</p> <ul style="list-style-type: none"> • Computation component: 115 pennies • Modeling component: The student shows a valid strategy to find the total number of pennies. For example, the student shows the equation $18 + 40 + 32 + 25 = 115$.
1	Student response includes 1 of the 2 elements. Or, the student has as computation error, but provides a valid strategy.
0	Student response is incorrect or irrelevant.

Unit 1 #6 Rubric Part A

Score	Description
1	Reasoning component: The student correctly identifies the error in Cindy's error. For example: "Cindy thought addition was the opposite of division."
0	Student response is incorrect or irrelevant.

Unit 1 #6 Rubric Part B

Score	Description
2	<p>Student response includes each of the following 2 elements.</p> <ul style="list-style-type: none"> • Reasoning component: The student explains that multiplication is the opposite of division. For example: "To find the quotient of $27 \div 9$, I need to know what number when multiplied by 9 has a product of 27. • Computation component: $27 \div 9 = 3$ <p>Notes:</p> <ul style="list-style-type: none"> ○ The student does not need to use the term "unknown factor" in his or her explanation. ○ The equation does not have to be provided to receive credit as long as the student shows clear understanding of using an unknown factor problem to find the answer to a division problem. ○ The student may provide only the equation for the computation part. ○ The student may earn credit for another valid explanation, such as repeated addition or subtraction. ○ The computation may be embedded within the reasoning.
1	Student response includes 1 of the 2 elements.
0	Student response is incorrect or irrelevant.

Unit 1 #12 Rubric Part A

Score	Description
1	Modeling component: Student shades a 6×7 array.
0	Student does not shade a 6×7 array.

Unit 1 #12 Rubric Part B

Score	Description
2	<p>Student response includes each of the following 2 elements.</p> <ul style="list-style-type: none"> • Computation component: 42 • Modeling component: Student writes an equation showing how to find the area of the array.

	<p>Sample Student Response:</p> <p>I shaded in an array of 6×7. I know $6 \times 7 = 42$, so the area of the array is 42.</p>
1	Student response includes 1 of the 2 elements. Or, the student provides a valid equation showing the correct process for finding the area, but makes a computational error, such as, $6 \times 7 = 48$.
0	Student response is incorrect or irrelevant.

Unit 2 #7 Rubric Part A

Score	Description
2	<p>Student response includes each of the following 2 elements.</p> <ul style="list-style-type: none"> • Computation component: Correctly finds the cost of each can of paint, \$9. • Modeling component: Shows valid work or offers a valid explanation for finding the cost. <p>Sample Student Response:</p> <p>To find the money spent on the paint, I multiplied the number of brushes by \$5. I then subtracted that number from \$94. The remaining amount is spent on paint. Since there are 6 sections, I divide \$54 by 6. So the cost of each can of paint is \$9.</p> <p>OR</p> $8 \times 5 = 40$ $94 - 40 = 54$ $54 \div 6 = 9$ <p>So the cost for each small can of paint is \$9.</p>
1	Student response includes 1 of the 2 elements. Or, the student has as computation error, but gives a valid explanation or shows a valid process.
0	Student response is incorrect or irrelevant.

Unit 2 #7 Rubric Part B

Score	Description
1	Student selects both B and F.
0	Student response is incorrect.

Unit 2 #9 Rubric Part A

Score	Description
2	Student response includes each of the following 2 elements.

	<ul style="list-style-type: none"> • Computation component: The student identifies Table B and Table D as having the same area. • Reasoning component: The student explains that the areas are the same because $3 \times 4 = 4 \times 3$. <p>Notes:</p> <ul style="list-style-type: none"> ○ Use of the term "commutative property" is not required. ○ Full credit for both computation and reasoning is awarded if student states "Tables B and D are both $4 \times 3 = 12$ square feet."
1	Student response includes 1 of the 2 elements.
0	Student response is incorrect or irrelevant.

Unit 2 #9 Rubric Part B

Score	Description
2	<p>Student response includes each of the following 2 elements.</p> <ul style="list-style-type: none"> • Computation component: The student indicates that the total area of the combined tabletop is 18 square feet. • Reasoning component: The student explains why both expressions are correct, such as, "The diagram shows you can either find the area of each table and add them together, $(3 \times 2) + (3 \times 4)$, or since they both have the same length, you can just add the 2 widths together and then multiply by the length, $3 \times (2 + 4)$." <p>Note: Use of the term "distributive property" is not required.</p>
1	Student response includes 1 of the 2 elements.
0	Student response is incorrect or irrelevant.

Unit 3 #5 Rubric

Score	Description
3	<p>Student response includes each of the following 3 elements.</p> <ul style="list-style-type: none"> • Computation component: States that Point P represents $\frac{5}{6}$ • Reasoning component: Correct explanation for what the denominator represents • Reasoning component: Correct explanation for what the numerator represents <p>Sample Student Response:</p> <p>Point P is at $\frac{5}{6}$ on the number line. The denominator represents the total number of equal parts between 0 and 1. There are six equal</p>

	segments between 0 and 1 so each segment is $\frac{1}{6}$. The numerator represents the number of segments that the number is to the right of 0. So, if you count 5 segments of $\frac{1}{6}$, you end up at $\frac{5}{6}$.
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.