

The following pages include the answer keys for all machine-scored items. A sample student response for the top score is included for all hand-scored constructed response items.

- Some answer keys include one possible sample student response. 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.

Section 1

Item Number	Answer Key	Evidence Statement Key/ Content Scope
1.	A	3.NF.A.3b
2.	C, E	3.OA.C.7-1
3.	C	3.MD.C.7b
4.	$\frac{2}{4} > \frac{2}{6}$ and $\frac{2}{8} < \frac{2}{4}$	3.NF.A.3d
5.	9	3.OA.A.3-2
6.	A	3.MD.D.8
7.	$\frac{1}{6}$ or equivalent	3.NF.A.2a
8.	B	3.OA.D.9
9.	The number 387 rounds to 400. The number 349 rounds to 300. The number 351 rounds to 400.	3.NBT.A.1
10.	A	3.OA.A.1
11.	18 liters	3.MD.A.2
12.	D	3.G.A.2

Section 2

Item Number	Answer Key	Evidence Statement Key/ Content Scope
1.	B	3.M.1 3.OA.A.3-1
2.	There are 5 squares each with [an area of 100 square feet], so the person should have multiplied [5 by 100].	3.R.2 3.MD.C.7d
3.	<p><u>Sample Top Score Response</u></p> <p>There are 4 rows of pennies in the array, so the student could make 4 stacks of pennies. Since there are 5 pennies in each row, there would be 5 pennies in each stack.</p> <p>There are 5 columns of pennies in the array, so the student could make 5 stacks of pennies. Since there are 4 pennies in each column, there would be 4 pennies in each stack.</p> <p>If I divide the array in half between the second and third rows, there would be 10 pennies in the top two rows and 10 pennies in the bottom two, so the student could make 2 stacks of pennies with 10 pennies in each stack.</p> <p>Refer to the Holistic Rubric for 3-Point Reasoning Constructed Response Items for score point information.</p>	3.R.1 3.OA.A.2
4.	C	3.M.3 3.NBT.A.2

Item Number	Answer Key	Evidence Statement Key/ Content Scope
5.	<p><u>Sample Top Score Response</u></p> <p>Step one shows the total number of pieces of candy the student has. Since there are 3 packages with 20 pieces of candy in each package, the numbers should be multiplied to find the total number of pieces of candy.</p> <p>Step two shows the total number of pieces of candy the student put in the treat bags. Since there are 5 treat bags and the student put 9 pieces of candy in each treat bag, the numbers should be multiplied to find the total number of pieces of candy the student put in the treat bags.</p> <p>Step three shows how many pieces of candy the student has left. Since the student started with 60 pieces of candy and put 45 pieces of candy in the treat bags, these numbers should be subtracted to find the total number of pieces of candy the student has left.</p> <p>Refer to the Holistic Rubric for 3-Point Modeling Constructed Response Items for score point information.</p>	3.M.5 3.OA.D.8 3.NBT.A.2 3.NBT.A.3
6.	D	3.R.4 3.OA.A.3-1

Section 3

Item Number	Answer Key	Evidence Statement Key/ Content Scope
1.	B	3.NF.A.3a
2.	$30 \div [5] = 6$ $27 \div 3 = [9]$ $28 \div [4] = 7$	3.OA.C.7-2
3.	D	3.G.A.1
4.	The model should be divided into sections and shaded to represent a fraction equivalent to $\frac{2}{3}$.	3.NF.A.1
5.	A	3.OA.A.2
6.	From left to right, the heights of the bars should be 4, 6, 2, 8, and 6.	3.MD.B.3
7.	647	3.NBT.A.2
8.	B	3.NF.A.3c
9.	B, D	3.OA.B.5
10.	C	3.MD.C.7d
11.	A point should be plotted at the second mark after 0 on the number line.	3.NF.A.2b

Section 4

Item Number	Answer Key	Evidence Statement Key/ Content Scope
1.	C	3.M.2 3.OA.A.3-2
2.	The point on the number line can be used to show that $\frac{8}{8} = 1$ and $\frac{1}{1} = 1$.	3.R.1 3.NF.A.3c
3.	<p>Sample Top Score Response</p> <p>There are 9 supply boxes, and each box will need 6 colored markers, so the equation $6 \times 9 = 54$ means that the teacher needs a total of 54 colored markers to fill the supply boxes.</p> <p>The teacher needs 54 colored markers, and the teacher already had 15 colored markers, so the equation $54 - 15 = 39$ means that the teacher needs 39 more colored markers to fill the supply boxes.</p> <p>The teacher's thinking is correct.</p> <p>Refer to the Holistic Rubric for 3-Point Reasoning Constructed Response Items for score point information.</p>	3.R.4 3.OA.A.3-1
4.	4 \times 9, or 9 \times 4, or an equivalent expression that uses only the numbers 4 and/or 9, e.g. 9 + 9 + 9 + 9	3.M.3 3.OA.A.1

Item Number	Answer Key	Evidence Statement Key/ Content Scope
5.	<p><u>Sample Top Score Response</u></p> <p>The area of the smaller rectangle is $8 \times 6 = 48$ square feet.</p> <p>The area of the larger rectangle is $10 \times 9 = 90$ square feet.</p> <p>The area of both rectangles is $48 + 90 = 138$ square feet.</p> <p>Refer to the Holistic Rubric for 3-Point Modeling Constructed Response Items for score point information.</p>	3.M.4 3.MD.D.8
6.	C, E	3.R.3 3.OA.B.5