

**Practice Test Answer and Alignment Document**  
**Mathematics: Grade 5**  
**Pencil-and-Paper**

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.	305	5.MD.C.5c
2.	B	5.NF.A.1-2
3.	36.008	5.NBT.A.3a
4.	A	5.NF.B.6
5.	15	5.NBT.B.6
6.	C, E	5.NF.B.7a
7.	D	5.OA.A.2
8.	B	5.NF.A.2
9.	C	5.NBT.B.5
10.	18500	5.MD.A.1
11.	A, C, F	5.G.A.1 5.G.A.2
12.	B	5.NF.B.3

## Section 2

Item Number	Answer Key	Evidence Statement Key/ Content Scope
1.	B	5.R.4 5.MD.A.1 5.NBT.B.7-1 5.NBT.B.7-2
2.	A, C, E	5.M.1 5.M.1-1 5.OA.A.2
3.	<p><b><u>Sample Top Score Response</u></b></p> <p>First example: <math>1005 \div 15 = 67</math>. Since 67 doesn't end in 5, the claim is incorrect.</p> <p>Second example: <math>4235 \div 15 = 282\frac{1}{3}</math>.</p> <p>Since <math>282\frac{1}{3}</math> doesn't end in 5 and has a remainder, the claim is incorrect.</p> <p><b>Refer to the Holistic Rubric for 3-Point Reasoning Constructed Response Items for score point information.</b></p>	5.R.3 5.NBT.B.6
4.	A	5.M.1 5.NF.B.4a 5.M.1-2

Item Number	Answer Key	Evidence Statement Key/ Content Scope
5.	<p><b><u>Sample Top Score Response</u></b></p> <p>10 cups of walnuts can be used to make <math>10 \div \frac{1}{6} = 60</math> servings of trail mix.</p> <p>12 cups of pretzels can be used to make <math>12 \div \frac{1}{4} = 48</math> servings of trail mix.</p> <p>9 cups of apricots can be used to make <math>9 \div \frac{1}{8} = 72</math> servings of trail mix.</p> <p>The least of these values is 48, so a total of 48 servings of trail mix can be made.</p> <p>Kasey will use all the pretzels.</p> <p>48 servings of trail mix require <math>48 \times \frac{1}{6} = 8</math> cups of walnuts, so Kasey will have <math>10 - 8 = 2</math> cups of walnuts left over.</p> <p>48 servings of trail mix require <math>48 \times \frac{1}{8} = 6</math> cups of apricots, so Kasey will have <math>9 - 6 = 3</math> cups of apricots left over.</p> <p><b>Refer to the Holistic Rubric for 4-Point Modeling Constructed Response Items for score point information.</b></p>	<p>5.M.1 5.NF.B.7c 5.M.1-4</p>
6.	D	<p>5.R.2 5.OA.A.1</p>

### Section 3

Item Number	Answer Key	Evidence Statement Key/ Content Scope
1.	B	5.NF.A.1-4
2.	2400	5.MD.C.5b
3.	D	5.OA.B.3
4.	A	5.NF.B.7c
5.	B	5.NBT.A.3b
6.	C	5.NF.B.4a
7.	C	5.MD.B.2
8.	D	5.NBT.B.7-3
9.	D	5.NF.B.7b
10.	A	5.NBT.A.1
11.	A	5.G.B.3

## Section 4

Item Number	Answer Key	Evidence Statement Key/ Content Scope
1.	C	5.M.1 5.NF.B.4b 5.M.1-3 5.NF.A.1-3
2.	C, D	5.R.3 5.G.B.4
3.	<p><b><u>Sample Top Score Response</u></b></p> <p>The volume of the top box is  <math>8 \times 24 \times 6 = 1152</math> cubic inches.</p> <p>The volume of the bottom box is  <math>20 \times 24 \times 6 = 2880</math> cubic inches.</p> <p>The total volume of the boxes is  <math>1152 + 2880 = 4032</math> cubic inches.</p> <p><b>Refer to the Holistic Rubric for            3-Point Modeling Constructed            Response Items for score point            information.</b></p>	5.M.1 5.MD.C.5c 5.M.1-4
4.	B	5.R.1 5.NF.B.4a 5.NF.B.5a 5.NF.B.5b

Item Number	Answer Key	Evidence Statement Key/ Content Scope
5.	<p><b><u>Sample Top Score Response</u></b></p> <p>The 20 basic calculators require a total of <math>20 \times 3 = 60</math> batteries. The 12 advanced calculators require a total of <math>12 \times 4 = 48</math> batteries. In total, the teacher needs <math>60 + 48 = 108</math> batteries.</p> <p>Dividing, <math>108 \div 24 = 4.5</math>. Therefore, the teacher needs to buy 5 packages of batteries. The teacher's thinking that 6 packages of batteries is incorrect.</p> <p>5 packages contain a total of <math>5 \times 24 = 120</math> batteries, so the teacher will have <math>120 - 108 = 12</math> batteries left over.</p> <p><b>Refer to the Holistic Rubric for 4-Point Reasoning Constructed Response Items for score point information.</b></p>	<p>5.R.4 5.OA.A.1</p>
6.	A	<p>5.M.1 5.NBT.B.7-1 5.M.1-3</p>