# Practice Test Answer and Alignment Document
## Mathematics: Grade 5
## Online

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. | C | 5.NF.B.4a |
| 2. | $1\frac{5}{8}$ or equivalent | 5.NF.A.2 |
| 3. | A, C, E | 5.M.1 5.M.1-1 5.OA.A.2 |
| 4. | 18500 | 5.MD.A.1 |

| Item Number | Answer Key | Evidence Statement Key/ Content Scope |
|---|---|---|
| 5. | **<u>Sample Top Score Response</u>**<br><br>First example: $1005 \div 15 = 67$. Since 67 doesn't end in 5, the claim is incorrect.<br><br>Second example:<br>$4235 \div 15 = 282\frac{1}{3}$. Since $282\frac{1}{3}$ doesn't end in 5 and has a remainder, the claim is incorrect.<br><br>**Refer to the Holistic Rubric for 3-Point Reasoning Constructed Response Items for score point information.** | 5.R.3<br>5.NBT.B.6 |
| 6. | Each term in pattern H is [6] [more than] the corresponding term in pattern G. | 5.OA.B.3 |
| 7. | A | 5.M.1<br>5.NF.B.4a<br>5.M.1-2 |
| 8. | 36.008 | 5.NBT.A.3a |
| 9. | A | 5.G.B.3 |

# Section 2

| Item Number | Answer Key | Evidence Statement Key/ Content Scope |
|---|---|---|
| 1. | C | 5.NBT.B.5 |
| 2. | 35 | 5.NF.B.7b |
| 3. | C, D | 5.R.3 <br> 5.G.B.4 |
| 4. | The student should select the 8 in the fourth box from the left. | 5.NBT.A.1 |
| 5. | **Sample Top Score Response** <br><br> 10 cups of walnuts can be used to make $10 \div \frac{1}{6} = 60$ servings of trail mix. <br> 12 cups of pretzels can be used to make $12 \div \frac{1}{4} = 48$ servings of trail mix. <br> 9 cups of apricots can be used to make $9 \div \frac{1}{8} = 72$ servings of trail mix. <br> The least of these values is 48, so a total of 48 servings of trail mix can be made. <br> Kasey will use all the pretzels. <br> 48 servings of trail mix require $48 \times \frac{1}{6} = 8$ cups of walnuts, so Kasey will have $10 - 8 = 2$ cups of walnuts left over. <br> 48 servings of trail mix require $48 \times \frac{1}{8} = 6$ cups of apricots, so Kasey will have $9 - 6 = 3$ cups of apricots left over. <br> **Refer to the Holistic Rubric for 4-Point Modeling Constructed Response Items for score point information.** | 5.M.1 <br> 5.NF.B.7c <br> 5.M.1-4 |

| Item Number | Answer Key | Evidence Statement Key/ Content Scope |
|---|---|---|
| 6. | The expression that should be in the first row is [5 + 7 × 8].<br><br>The expression that should be in the second row is [5 × 7 + 8].<br><br>The expression that should be in the third row is [5 × (7 + 8)].<br><br>The expression that should be in the fourth row is [(5 + 7) × 8]. | 5.OA.A.2 |
| 7. | B | 5.R.4<br>5.MD.A.1<br>5.NBT.B.7-1<br>5.NBT.B.7-2 |
| 8. | 305 | 5.MD.C.5c |
| 9. | B | 5.NF.A.1-4 |

## Section 3

| Item Number | Answer Key | Evidence Statement Key/ Content Scope |
|---|---|---|
| 1. | A | 5.NF.B.6 |
| 2. | Quotient: [161] <br> Remainder: [15] | 5.NBT.B.6 |
| 3. | C | 5.M.1 <br> 5.NF.B.4b <br> 5.M.1-3 <br> 5.NF.A.1-3 |
| 4. | 2400 cubic inches | 5.MD.C.5b |
| 5. | **Sample Top Score Response** <br><br> The 20 basic calculators require a total of $20 \times 3 = 60$ batteries. The 12 advanced calculators require a total of $12 \times 4 = 48$ batteries. In total, the teacher needs $60 + 48 = 108$ batteries. <br><br> Dividing, $108 \div 24 = 4.5$. Therefore, the teacher needs to buy 5 packages of batteries. The teacher's thinking that 6 packages of batteries is incorrect. <br><br> 5 packages contain a total of $5 \times 24 = 120$ batteries, so the teacher will have $120 - 108 = 12$ batteries left over. <br><br> **Refer to the Holistic Rubric for 4-Point Reasoning Constructed Response Items for score point information.** | 5.R.4 <br> 5.OA.A.1 |
| 6. | The student should plot the points (3, 5), (6, 4), (0, 2). | 5.G.A.1/5.G.A.2 |
| 7. | A | 5.M.1 <br> 5.NBT.B.7-1 <br> 5.M.1-3 |
| 8. | $\frac{1}{12}$ or equivalent | 5.NF.B.7c |

## Section 4

| Item Number | Answer Key | Evidence Statement Key/ Content Scope |
|---|---|---|
| 1. | B | 5.NF.B.3 |
| 2. | $\dfrac{8}{21}$ | 5.NF.A.1-2 |
| 3. | B | 5.R.1<br>5.NF.B.4a<br>5.NF.B.5a<br>5.NF.B.5b |
| 4. | 15.374 [>] 15.347<br>25.502 [<] 25.52<br>35.716 [>] 35.671<br>45.280 [=] 45.28 | 5.NBT.A.3b |
| 5. | **Sample Top Score Response**<br>The volume of the top box is $8 \times 24 \times 6 = 1152$ cubic inches.<br>The volume of the bottom box is $20 \times 24 \times 6 = 2880$ cubic inches.<br>The total volume of the boxes is $1152 + 2880 = 4032$ cubic inches.<br>**Refer to the Holistic Rubric for 3-Point Modeling Constructed Response Items for score point information.** | 5.M.1<br>5.MD.C.5c<br>5.M.1-4 |
| 6. | C, E | 5.NF.B.7a |
| 7. | D | 5.R.2<br>5.OA.A.1 |
| 8. | $5\dfrac{1}{4}$ or equivalent | 5.MD.B.2 |
| 9. | D | 5.NBT.B.7-3 |