MCAP Maryland Comprehensive Assessment Program

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.	305	5.MD.C.5c
2.	$\frac{8}{21}$	5.NF.A.1-2
3.	36.008	5.NBT.A.3a
4.	A	5.NF.B.6
5.	Quotient: [161] Remainder: [15]	5.NBT.B.6
6.	C, E	5.NF.B.7a

Item Number	Answer Key	Evidence Statement Key/ Content Scope
7.	The expression that should be in the first row is [5 + 7 × 8]. The expression that should be in the second row is [5 × 7 + 8]. The expression that should be in the third row is [5 × (7 + 8)]. The expression that should be in the fourth row is [(5 + 7) × 8].	5.OA.A.2
8.	$1\frac{5}{8}$ or equivalent	5.NF.A.2
9.	C	5.NBT.B.5
10.	18500	5.MD.A.1
11.	The student should plot the points (3, 5), (6, 4), (0, 2).	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.	**Sample Top Score Response** First example: $1005 \div 15 = 67$. Since 67 doesn't end in 5, the claim is incorrect. Second example: $4235 \div 15 = 282\frac{1}{3}$. Since $282\frac{1}{3}$ doesn't end in 5 and has a remainder, the claim is incorrect. **Refer to the Holistic Rubric for 3-Point Reasoning Constructed Response Items for score point information.**	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.	**Sample Top Score Response** 10 cups of walnuts can be used to make $10 \div \frac{1}{6} = 60$ servings of trail mix. 12 cups of pretzels can be used to make $12 \div \frac{1}{4} = 48$ servings of trail mix. 9 cups of apricots can be used to make $9 \div \frac{1}{8} = 72$ servings of trail mix. The least of these values is 48, so a total of 48 servings of trail mix can be made. Kasey will use all the pretzels. 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. 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. **Refer to the Holistic Rubric for 4-Point Modeling Constructed Response Items for score point information.**	5.M.1 5.NF.B.7c 5.M.1-4
6.	D	5.R.2 5.OA.A.1

Section 3

Item Number	Answer Key	Evidence Statement Key/ Content Scope
1.	B	5.NF.A.1-4
2.	2400 cubic inches	5.MD.C.5b
3.	Each term in pattern H is [6] [more than] the corresponding term in pattern G.	5.OA.B.3
4.	$\frac{1}{12}$ or equivalent	5.NF.B.7c
5.	15.374 [>] 15.347 25.502 [<] 25.52 35.716 [>] 35.671 45.280 [=] 45.28	5.NBT.A.3b
6.	C	5.NF.B.4a
7.	$5\frac{1}{4}$ or equivalent	5.MD.B.2
8.	D	5.NBT.B.7-3
9.	35	5.NF.B.7b
10.	The student should select the 8 in the fourth box from the left.	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.	**Sample Top Score Response** The volume of the top box is $8 \times 24 \times 6 = 1152$ cubic inches. The volume of the bottom box is $20 \times 24 \times 6 = 2880$ cubic inches. The total volume of the boxes is $1152 + 2880 = 4032$ cubic inches. **Refer to the Holistic Rubric for 3-Point Modeling Constructed Response Items for score point information.**	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.	**Sample Top Score Response** 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. 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. 5 packages contain a total of $5 \times 24 = 120$ batteries, so the teacher will have $120 - 108 = 12$ batteries left over. **Refer to the Holistic Rubric for 4-Point Reasoning Constructed Response Items for score point information.**	5.R.4 5.OA.A.1
6.	A	5.M.1 5.NBT.B.7-1 5.M.1-3