Practice Test Answer and Alignment Document
Mathematics – Grade 6
Online

MCAP Maryland Comprehensive Assessment Program

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	6.NS.B.3-2
2.	The section between -0.3 and -0.2 should be selected. On the closer view of the number line, a point should be plotted at the first hash mark to the right of -0.3.	6.NS.C.6c-1
3.	The ratio of comedy movies to action movies is [3 : 5]. The ratio of adventure movies to comedy movies is [4 : 3].	6.RP.A.1
4.	C	6.NS.B.3-3
5.	A, D	6.EE.A.4
6.	Quadrant IV	6.NS.C.8
7.	The graph should show a ray pointing to the right with a closed (solid) point at 25.	6.EE.B.8
8.	D	6.NS.A.1

Item Number	Answer Key	Evidence Statement Key/ Content Scope
9.	66	6.EE.A.1-2
10.	56 + 91 = [7]([8] + [13]) or 56 + 91 = [7]([13] + [8])	6.NS.B.4-2
11.	B	6.EE.B.6
12.	The student should select the circle located at 3 on the number line.	6.NS.C.7c-1
13.	A	6.NS.B.2

Section 2

Item Number	Answer Key	Evidence Statement Key/ Content Scope
1.	B	6.G.A.2-1
2.	To convert from quarts to pints, the chef could take the number of quarts and [multiply by 2]. To convert from pints to cups, the chef could take the number of pints and [multiply by 2]. The chef should find that the number of cups of cooking oil that are equivalent to 8 quarts is [32].	6.RP.A.3d
3.	D	6.R.2c 6.NS.C.7d
4	A	6.M.5 6.EE.C.9
5.	**Sample Top Score Response** A rate of 2 chairs every 10 minutes is equivalent to 1 chair every 5 minutes. To make 5 chairs, a time of 5 × 5 = 25 minutes is required. Since 2 chairs are made every 10 minutes, the value 32 ÷ 2 = 16 should be multiplied by 10. 16 × 10 = 160, so 160 minutes are required to make 32 chairs. **Refer to the Holistic Rubric for 4-Point Reasoning Constructed Response Items for score point information.**	6.R.1a 6.RP.A.3b
6.	The number of batches of cookies the baker can make from each pound of cookie dough is [2]. The total number of batches of cookies the baker can make from the 8 pounds of cookie dough made is [16].	6.M.4 6.EE.C.9
7.	The mean is 3. The median is 2.5. The interquartile range is 4.	6.SP.B.5

Item Number	Answer Key	Evidence Statement Key/ Content Scope
8.	$x - 7$ or equivalent expression	6.EE.A.2a

Section 3

Item Number	Answer Key	Evidence Statement Key/ Content Scope
1.	A	6.EE.B.5-2
2.	The bar for the scores 71-75 should show a total of 3 scores. The bar for the scores 76-80 should show a total of 2 scores. The bar for the scores 81-85 should show a total of 4 scores. The bar for the scores 86-90 should show a total of 3 scores. The bar for the scores 91-95 should show a total of 4 scores. The bar for the scores 96-100 should show a total of 4 scores.	6.SP.B.4
3.	**<u>Sample Top Score Response</u>** The painter did not multiply the mixed numbers correctly. The painter incorrectly multiplied the whole numbers together and the fractions together, then added the sums. $2\frac{1}{2} \times 3\frac{1}{2} = \frac{5}{2} \times \frac{7}{2} = \frac{35}{4}$ $2\frac{1}{2} \times 4\frac{1}{2} = \frac{5}{2} \times \frac{9}{2} = \frac{45}{4}$ $3\frac{1}{2} \times 4\frac{1}{2} = \frac{7}{2} \times \frac{9}{2} = \frac{63}{4}$ Also, the painter did not multiply the mixed numbers by 2 to account for there being 2 of each face. The total surface area is $2\left(\frac{35}{4}\right) + 2\left(\frac{45}{4}\right) + 2\left(\frac{63}{4}\right) = \frac{286}{4} =$ $71\frac{1}{2}$ square feet	6.M.1 6.G.A.4
4.	30	6.RP.A.3b

Item Number	Answer Key	Evidence Statement Key/Content Scope
5.	**<u>Sample Top Score Response</u>** The mistake was using the reciprocal of both fractions and not only the divisor. To find x, the number of portions in the jar, divide $\frac{3}{4}$ by $\frac{1}{10}$. $x = \frac{3}{4} \div \frac{1}{10} = \frac{3}{4} \square \frac{10}{1} = \frac{30}{4} = 7\frac{1}{2}$ There will be 7 whole portions of glitter. **Refer to the Holistic Rubric for 3-Point Reasoning Constructed Response Items for score point information.**	6.R.2b 6.NS.A.1
6.	C	6.R.3a 6.EE.A.3
7.	B, E	6.M.3 6.RP.A.3b 6.EE.C.9

Section 4

Item Number	Answer Key	Evidence Statement Key/Content Scope
1.	C	6.G.A.1
2.	The student should graph two of the following points: (0, 0), (1, 24), (2, 48), (3, 72), (4, 96), (5, 120).	6.EE.C.9
3.	D	6.R.3b 6.EE.B.7
4.	**Sample Top Score Response** The length of 2-inch wood needed is 2(18 + 2 + 2) + 2(24) = 92 inches. The areas of the top and bottom pieces are each 2 × 22 = 44 square inches. The areas of the side pieces are each 2 × 36 = 72 square inches. The total area is 44 + 44 + 72 + 72 = 232 square inches. **Refer to the Holistic Rubric for 4-Point Modeling Constructed Response Items for score point information.**	6.M.1 6.EE.B.6
5.	B	6.R.1a 6.RP.A.3a
6.	B, C, E	6.M.2 6.RP.A.3b
7.	$\frac{3}{8}$ or equivalent	6.EE.B.7