MCAS Grade 3 Mathematics
Paper-Based Practice Test Answer Key

Session 1

PBT Item No.	Standard	Item Type*	Max Points	Correct Answer**
1	3.OA.A.3	SR	1	C
2	3.NBT.A.2	SR	1	A
3	3.NF.A.3	SR	1	D
4	3.MD.A.2	SR	1	A
5	3.OA.A.4	SR	1	A
6	3.G.A.1	SR	1	D
7	3.NF.A.2	CR	3	*See page 2*
8	3.MD.B.3	SR	1	B
9	3.G.A.2	SR	1	C
10	3.MD.D.8	SR	1	B
11	3.OA.B.6	SR	1	D
12	3.NBT.A.1	SR	1	C,E
13	3.NF.A.1	SR	1	D
14	3.MD.A.1	CR	3	*See page 3*
15	3.OA.A.1	SR	1	C
16	3.MD.B.4	SR	1	C
17	3.OA.C.7	SR	1	D
18	3.NBT.A.3	SA	1	120
19	3.OA.D.9	SR	1	B,F
20	3.NF.A.3	SR	1	D

Session 2

PBT Item No.	Standard	Item Type*	Max Points	Correct Answer**
21	3.OA.A.4	SR	1	A,D,F
22	3.NF.A.1	SR	1	A
23	3.MD.B.3	SR	1	B
24	3.OA.A.3	SR	1	A
25	3.NF.A.3	SR	1	D
26	3.G.A.2	SR	1	A,D
27	3.NF.A.2	SR	1	C
28	3.NBT.A.1	CR	3	*See page 4*
29	3.OA.D.8	SR	1	A
30	3.MD.C.5	SR	1	B,D
31	3.NF.A.3	SR	1	A
32	3.OA.A.2	SR	1	C
33	3.G.A.2	SR	1	A
34	3.MD.C.6	SA	1	48
35	3.OA.B.5	CR	3	*See page 5*
36	3.MD.B.4	SR	1	D
37	3.G.A.1	SR	1	C,D
38	3.NBT.A.3	SR	1	A
39	3.OA.C.7	SR	1	A,C,F
40	3.MD.C.7	SR	1	D

*Mathematics item types are selected-response (SR), short-answer (SA), and constructed-response (CR).

**Answers are provided here for selected-response and short-answer items only. Pages 2–5 of this document provide sample responses and scoring guidelines for constructed-response items.

Scoring Guide for PBT Item #7: Constructed-Response Item

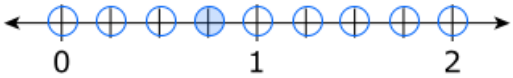
Score	Description
3	The student response demonstrates an exemplary understanding of the Number & Operations—Fractions concepts involved in understanding a fraction is a number on the number line and understanding how to represent fractions on a number line diagram. The student correctly plots the locations of fractions less than one and greater than one on given number line diagrams and explains how to determine where to plot the points.
2	The student response demonstrates a good understanding of the Number & Operations—Fractions concepts involved in understanding a fraction is a number on the number line and understanding how to represent fractions on a number line diagram. Although there is significant evidence that the student was able to recognize and apply the concepts involved, some aspect of the response is flawed. As a result, the response merits 2 points.
1	The student response demonstrates a minimal understanding of the Number & Operations—Fractions concepts involved in understanding a fraction is a number on the number line and understanding how to represent fractions on a number line diagram. While some aspects of the task are completed correctly, others are not. The mixed evidence provided by the student merits 1 point.
0	The student response contains insufficient evidence of an understanding of the Number & Operations—Fractions concepts involved in understanding a fraction is a number on the number line and understanding how to represent fractions on a number line diagram. As a result, the response does not merit any points.

Sample Response:

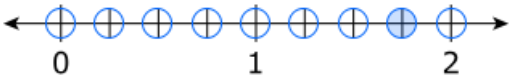
The following are the most common correct answers. Other versions of the correct answers also receive credit.

Part A

Part B



Part C



Since the number line is divided into fourths, start at zero and count to the seventh mark to plot seven fourths.

Scoring Guide for PBT Item #14: Constructed-Response Item

Score	Description
3	The student response demonstrates an exemplary understanding of the Measurement and Data concepts involved in telling and writing time to the nearest minute, measuring time intervals in minutes, and solving word problems involving addition and subtraction of time intervals in minutes. The student correctly tells the time on an analog clock, measures a time interval in minutes given time on a digital clock, and solves a word problem involving addition of time intervals in minutes larger than one hour.
2	The student response demonstrates a good understanding of the Measurement and Data concepts involved in telling and writing time to the nearest minute, measuring time intervals in minutes, and solving word problems involving addition and subtraction of time intervals in minutes. Although there is significant evidence that the student was able to recognize and apply the concepts involved, some aspect of the response is flawed. As a result, the response merits 2 points.
1	The student response demonstrates a minimal understanding of the Measurement and Data concepts involved in telling and writing time to the nearest minute, measuring time intervals in minutes, and solving word problems involving addition and subtraction of time intervals in minutes. While some aspects of the task are completed correctly, others are not. The mixed evidence provided by the student merits 1 point.
0	The student response contains insufficient evidence of an understanding of the Measurement and Data concepts involved in telling and writing time to the nearest minute, measuring time intervals in minutes, and solving word problems involving addition and subtraction of time intervals in minutes. As a result, the response does not merit any points.

Sample Response:

The following are the most common correct answers. Other versions of the correct answers also receive credit.

Part A

10:22 a.m.

Part B

29 minutes; 51 - 22 = 29

Part C

12:58 p.m.; it is 25 minutes until 12. Moving to 12 now makes it p.m. instead of a.m., 83 - 25 = 58. It will be 58 minutes past 12 p.m.

Scoring Guide for PBT Item #28: Constructed-Response Item

Score	Description
3	The student response demonstrates an exemplary understanding of the Numbers and Operations in Base Ten concepts involved in using place value understanding to round whole numbers to the nearest 10 or 100. The student correctly determines which numbers round to the same number when rounding to the nearest 100, and provides different numbers that also round to the same number.
2	The student response demonstrates a good understanding of the Numbers and Operations in Base Ten concepts involved in using place value understanding to round whole numbers to the nearest 10 or 100. Although there is significant evidence that the student was able to recognize and apply the concepts involved, some aspect of the response is flawed. As a result, the response merits 2 points.
1	The student response demonstrates a minimal understanding of the Numbers and Operations in Base Ten concepts involved in using place value understanding to round whole numbers to the nearest 10 or 100. While some aspects of the task are completed correctly, others are not. The mixed evidence provided by the student merits 1 point.
0	The student response contains insufficient evidence of an understanding of the Numbers and Operations in Base Ten concepts involved in using place value understanding to round whole numbers to the nearest 10 or 100. As a result, the response does not merit any points.

Sample Response:

The following are the most common correct answers. Other versions of the correct answers also receive credit.

Part A

651; All the numbers round to 600 except 651 rounds to 700.

Part B

601; (Any number greater than, or including, 550 and less than 650, but not one of the numbers already given, i.e., 559, 586, 637, or 648)

Part C

550; 549 is the largest number that will round down to 500, so 550 is the least number that will round to 600.

Scoring Guide for PBT Item #35: Constructed-Response Item

Score	Description
3	The student response demonstrates an exemplary understanding of the Operations and Algebraic Thinking concepts involved in applying properties of operations as strategies to multiply and divide. The student correctly shows how to use the distributive property to solve a multiplication problem and critiques the reasoning of another student who wants to use a different method.
2	The student response demonstrates a good understanding of the Operations and Algebraic Thinking concepts involved in applying properties of operations as strategies to multiply and divide. Although there is significant evidence that the student was able to recognize and apply the concepts involved, some aspect of the response is flawed. As a result, the response merits 2 points.
1	The student response demonstrates a minimal understanding of the Operations and Algebraic Thinking concepts involved in applying properties of operations as strategies to multiply and divide. While some aspects of the task are completed correctly, others are not. The mixed evidence provided by the student merits 1 point.
0	The student response contains insufficient evidence of an understanding of the Operations and Algebraic Thinking concepts involved in applying properties of operations as strategies to multiply and divide. As a result, the response does not merit any points.

Sample Response:

The following are the most common correct answers. Other versions of the correct answers also receive credit.

Part A

$6 \times 15 = (6 \times 10) + (6 \times 5)$ OR $6 \times 15 = (6 \times 5) + (6 \times 10)$

Part B

90

Part C

Yes, Tameka is correct. If you add 8 and 7, it is equal to 15. So, multiplying 6 times 7 and adding 6 times 8 is the same as multiplying 6 times 15. OR other valid explanation