Grade 7 Mathematics Computer-Based Practice Test Answer Key

The following pages include the answer key for all machine-scored items, followed by the rubrics for the hand-scored items. The rubrics show sample student responses. 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, if students make a computation error, they can still earn points for reasoning or modeling.

Session 1

Item Number	Answer Key	Standard
1	D	7.NS.1
2	Part A: 12.5 Part B: 0.8	7.G.1
3	A, C, D	7.NS.2
4	$\frac{7}{8} - \left(-2 + \frac{3}{4}\right) = \left($ [2] $+$ [-3/4] $\right) + \frac{7}{8}$	7.EE.2
5	3/16	7.NS.2
6	*See rubric*	7.SP.4

Session 2

Item Number	Answer Key	Standard
1	A	7.NS.3
2		7.G.3
3	Part A: 4 Part B: 5 Part C: 17 Part D: 1/17 or equivalent	7.RP.3
4	B	7.SP.3
5	192	7.G.6
6	*See rubric*	7.EE.1

Rubrics start on the next page.

Scoring Rubric for Grade 7 Practice Test; Session 1, Item #6:

Score	Description
4	The student response demonstrates an exemplary understanding of the Statistics and Probability concepts involved in using measures of center and measures of variability from random samples to draw informal comparative inferences about two populations. The student finds the median, mean, and mean absolute deviation of two sets of data and then compares them.
3	The student response demonstrates a good understanding of the Statistics and Probability concepts involved in using measures of center and measures of variability from random samples to draw informal comparative inferences about two populations. 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 3 points.
2	The student response demonstrates a fair understanding of the Statistics and Probability concepts involved in using measures of center and measures of variability from random samples to draw informal comparative inferences about two populations. While some aspects of the task are completed correctly, others are not. The mixed evidence provided by the student merits 2 points.
1	The student response demonstrates a minimal understanding of the Statistics and Probability concepts involved in using measures of center and measures of variability from random samples to draw informal comparative inferences about two populations.
0	The student response contains insufficient evidence of an understanding of the Statistics and Probability concepts involved in using measures of center and measures of variability from random samples to draw informal comparative inferences about two populations to merit any points.

Scoring Notes:

a. 4.5; I made an ordered list, then found (4 + 5)/2.
b. 2 + 5 + 5 + 3 + 4 + 5 = 24, 24 ÷ 6 = 4
c. 2 + 1 + 1 + 1 + 0 + 1 = 6, 6 ÷ 6 = 1
d. Andrew's school is more predictable because it has less variation. The range at Andrew's school is only 3 days but the range at Maria's school is 9 days.
OR
Andrew's school is more predictable. The mean absolute deviation at Maria's school is 2, which is double the MAD at Andrew's school and the range at Maria's school is three times the range at Andrew's school.

Scoring Rubric for Grade 7 Practice Test; Session 2, Item #6:

Score	Description
3	Student response includes each of the following 3 elements. • Identifies the step with the first error, Step 2 • Correct strategy for evaluating the expression • Provides correct value of the expression, 185 Sample Student Response: The first error was in step 2. The correct steps are: $2(-20) + 3\left(\frac{5}{4}(-20)\right) + 5\left(\frac{2}{5}(50)\right) + 4(50)$ step 1: $2(-20) + 3(-25) + 5(20) + 4(50)$ step 2: $-40 - 75 + 100 + 200$ step 3: $-115 + 300$ step 4: 185
2	Student response includes 2 of the 3 elements.
1	Student response includes 1 of the 3 elements.
0	Student response is incorrect or irrelevant.