Illinois MATH Assessment

Practice Item Answer Key

Grade 6 – Online, Text-to-Speech

The following pages include the answer key for all machine-scored items, followed by a sample response for the hand-scored item.

- The rubrics show sample student responses. Student responses other than that shown in the rubric may earn full or partial credit.
- Which responses to hand-scored items receive full or 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.

Item Number	Answer Key
1.	**C**
2.	**Student response is 2,600 in gap1, loss in gap2, 2,600 in gap3, 4,875 in gap4, profit in gap 5, and 4,875 in gap6.**
3.	**D**
4.	**Student response is Temperatures below Freezing for row 1, Temperatures above Freezing for row 2, Temperatures below Freezing for row 3, and Temperatures above Freezing for row 4.**
5.	**DD1: spread** **DD2: interquartile range**
6.	**Student response is C in gap1 and C in gap2.**
7.	**Student response is 168.125.**
8.	**See Rubric**
9.	**Student response is factor in gap1 and sum in gap2.**
10.	**Part A: A** **Part B: B**
11.	**See Rubric**
12.	**B,C,E**
13.	**Part A: D** **Part B: 40**
14.	**See Rubric**

15.	**Part A: Student response is a polygon with vertices at J(−7, −2), K(−7, 8), and L(4, 8).** **Part B: Student response is 55.**
16.	**18**

Rubrics

#8 Rubric	
Holistic Rubric	
Score	**Description**
3	Student response includes each of the following elements: • **Computation component** = 1 point: Correct value for how much the company will save per hour with the better option, $7.50 • **Modeling component** = 2 points: Valid work for determining how much the company will save per hour choosing the least expensive option Student response is completely correct and demonstrates a thorough understanding. Sample Student Response: The company will save $7.50 per hour by choosing the least expensive option. For option 1, there will need to be $12 - 8 = 4$ additional hours beyond the maximum. Therefore, the average cost per hour will be $51.25. $\frac{475 + (35)(4)}{12} = \frac{475 + 140}{12} = \frac{615}{12} = 51.25$ For option 2, there will not need to be any additional hours. Therefore, the average cost per hour will be $43.75. $\frac{525}{12} = 43.75$ Subtracting the hourly rates shows that option 2 is $7.50 per hour less expensive than option 1. $51.25 - 43.75 = 7.50$ Note: To receive full credit, the student much somehow show reference to the price per hour for each one, either amount or expression.
2	Student response demonstrates both general achievement of the elements of the task and a less than thorough understanding.
1	Student response demonstrates both limited achievement of the elements of the task and a limited understanding.
0	Student response does not achieve any elements of the task or demonstrate any understanding.

#11 Rubric

Holistic Rubric	
Score	**Description**
3	Student response includes each of the following elements: • **Computation component** = 1 point: Correct description of all values *a* for which $\lvert a \rvert$ is greater than 1.6 • **Reasoning component** = 1 point: Valid explanation for the student's answer that includes understanding of absolute value • **Reasoning component** = 1 point**:** Valid reasoning that involves the number line that includes understanding of absolute value Student response is completely correct and shows thorough understanding. Sample Student Response: The values of *a* for which $\lvert a \rvert$ is greater than 1.6 are $a > 1.6$ and $a < -1.6$. For positive numbers, the absolute value is the same as the number. Therefore, in order for the absolute value of *a* to be greater than 1.6, *a* must be greater than 1.6. For negative numbers, the absolute value is the opposite of the number. Therefore, in order for the absolute value of *a* to be greater than 1.6, *a* must be less than −1.6. The absolute value of a number is the distance that the number is from 0. The number line shows that in order for a number to be greater than 1.6 units from 0, the number must be to the right of 1.6 (greater than 1.6) or to the left of −1.6 (less than −1.6). Note: The use of inequality notation is not necessary.
2	Student response demonstrates both general achievement of the elements of the task and a less than thorough understanding.
1	Student response demonstrates both limited achievement of the elements of the task and a limited understanding.
0	Student response does not achieve any elements of the task or demonstrate any understanding.

#14 Rubric

Rubric Part A – Machine-scored	
Score	**Description**
1	**Computation component** = 1 point Student response is 6.
0	Student response is incorrect or irrelevant.

Holistic Rubric Part B	
Score	**Description**
3	Student response includes the following elements: • **Computation component** = 1 point: Correct selection of a value of *c* given the constraints, $c < \frac{1}{9}$ • **Reasoning component** = 2 points: Valid explanation or work to support that the selected value of c is correct Student response is completely correct and shows a thorough understanding. Sample Student Response: A possible value of *c* is $\frac{1}{10}$. $\frac{2}{3} \div c > \frac{2}{3} \div \frac{1}{9}$ $\frac{2}{3} \div c > \frac{2}{3} \cdot \frac{9}{1}$ $c\left(\frac{2}{3} \div c\right) > c(6)$ $\frac{2}{3} > 6c$ $\frac{1}{6}\left(\frac{2}{3}\right) > (6c)\frac{1}{6}$ $\frac{1}{9} > c$ $\frac{1}{9} > \frac{1}{10}$ $c = \frac{1}{10}$ Or other valid response.
2	Student response demonstrates both general achievement of the elements of the task and a less than thorough understanding.

1	Student response demonstrates both limited achievement of the elements of the task and a limited understanding.
0	Student response does not achieve any elements of the task or demonstrate any understanding.