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.

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#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 $\|a\|$ is greater than 1.6 and *a* is less than 0 • **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 $\|a\|$ is greater than 1.6 and *a* is less than 0 are $a < -1.6$. The value of *a* must be less than 0, so *a* must be a negative number. 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. On the number line, any values less than 0 will be to the left of 0. The absolute value of a number is the distance that the number is from 0, and any numbers greater than for which $\|a\|$ is greater than 1.6 will be to the left of −1.6. So, the values for *a* need to be located to the left of −1.6. Note: The use of inequality notation is not necessary. Or other valid approaches are acceptable. Or a valid and accurate representation using the drawing tool will be considered correct. Student's answer may appear in the drawing box or in the text box or in any combination of the two.
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.