NJSLA Grade 4 Mathematics

Lesson 2: Pre-Assessment of Type 1 Questions

Rationale

- In order to ensure that students perform at their personal best, students need to understand the format of the items associated with each domain and develop efficient strategies for responding to each item. This pre-assessment provides instructors with a view of students' content knowledge and ability to apply this knowledge in the test setting.
- This is a CLASSROOM assessment with the purpose of gathering information to gauge student strengths and weaknesses based on content, perception and analyzing processes. The goal of this lesson is to inform instruction and is not considered a District Benchmark Assessment.

Goal

- To identify items that present the greatest challenge for each student and the class as a whole

Objective

- Students will complete the Pre-Assessment of Type I Questions that represents the 5 CCSS domains and various styles of questions.

Materials

- Pre-Assessment of Type I Questions- Attached
- ***Pre-Assessment Student Profile***
- Class Folder Labeled: Lesson 2: Pre-Assessment of Type I Questions. (At the end of the lesson, place the class papers in the folder. If students used graph paper, please have students attach the graph paper to their pre-assessments.)

Procedures for the Pre-Assessment

- Be sure all students have a pencil, graph paper, and a pre-assessment. Highlighters can be provided. **NO Calculator**
- Place tests face-down on desks.
- Remind the students of test-taking posture and etiquette, such as sitting up straight and using EVERY available second.
- Provide a reasonable amount of time in which most students can complete the task.

- If a student is spending too much time on any given item, encourage him or her to complete the items with which he or she is confident and then return to the items that are less familiar later.
- At the conclusion, ask for student feedback and reactions to taking the pre-assessment.

Teacher & Teachers' Aide Observations During the Pre-Assessment

Be sure to circulate the classroom and monitor students while they are completing the pre-assessment.

- Which students are using their time wisely?
- Which students seem alert with good posture and energy?
- Which students are skipping items and need to be reminded to complete the skipped item?
- Which students skipped an item but completed the item at a later time?
- Which students are spending too much time on one particular item?
- Which students seem to be making small mathematical errors that could easily be fixed with a mini-lesson?

Assessment or Check for Understanding

- Use the answer key to score the students responses. Look for patterns of errors.

Follow-Up

- In order to initiate students' understanding of any type of mathematics item, whenever students are presented with an item, ask them to identify what kind of question it represents (Operations and Algebraic Thinking, Number and Operations in Base Ten, Number and Operations – Fractions, Measurement and Data, or Geometry).
- In order to initiate students' understanding of any type of mathematics item, whenever students are presented with an item, ask them to identify what style of question it represents (selected response items-select all that apply, category sort, menu choices, and constructed-response items-create the answer).

Pre-Assessment of Type I Questions Student Profile

Goal

- As the data is entered on the chart, teachers and students will be able to view student and class strengths and weaknesses. The Pre-Assessment of Type I Questions Student Profile provides a visual "snapshot" of students' initial performance as it pertains to strategies that foster and support student success with taking the NJSLA.

Procedures

- List the students for each class (A pre-assessment student profile is necessary for each class.)
- For each student, a plus (+) sign or negative (-) sign is placed in each column.

Pre-Assessment Student Profile Key Terms Briefly Explained:

Time: Which students lose time determining answers?

Approach: Which student relies on one approach too frequently? Did the student use mathematical models, methods and strategies from the Common Core State Standards?

Skill: Look for patterns of errors; do not simply comment, "Made a mistake." Note specific behaviors such as calculation errors.

Content: Which students just don't know a particular content area? (e.g. absolute value, prime numbers, translations)

Skipping: Which students are skipping tough items and returning to them later?

Plugging: When possible, are students taking the answer choices and plugging them into the question?

Comments: Are there any special or specific thoughts for a student? e.g. student frustration, low energy, lack of focus, completed assessment with ease, confident Note: Comments aren't necessary for every student.

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Pre-Assessment of Type I Questions Student Profile

Students	Time	Approach	Skill	Content	Skipping	Plugging	Comments

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Lesson 2: Implement the Pre-Assessment of Type I Questions

NO CALCULATOR

4.NBT.4

1. Choose the **two** correct selections. The Smith family went to the aquarium this weekend. Adult tickets were $20.95 and Children's tickets were $15.95. Which statements are true?

- ☐ A. Two childrens' tickets costs about $32.00
- ☐ B. One adult ticket and one child ticket cost $37.90
- ☐ C. Two adult tickets and one child ticket cost about $58.00
- ☐ D. Three adult tickets cost the same as four childrens' tickets
- ☐ E. Two adult tickets cost the same as three childrens' tickets

4.0A.5

2. What numbers are missing from the output column of the table below?

Input	Output
5	25
6	
7	35
9	

20 30 50 40 45

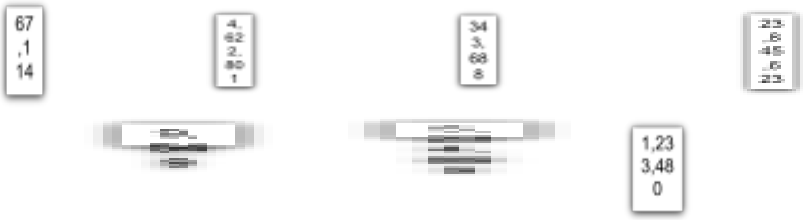
4.MD.2

3. Choose the **two** correct selections. Ian bought two watermelons at the grocery store yesterday. One weighed 3 lbs. 13 oz, and the other weighed 4 lbs. 7 oz. What was the total weight of the two watermelons?

☐ A. 7 lbs. 4 oz. ☐ B. 8 lbs. 4 oz. ☐ C. 7 lbs. 20 oz. ☐ D. 8 lbs. 6 oz. ☐ E. 7 lbs. 6 oz.

4.NBT.1

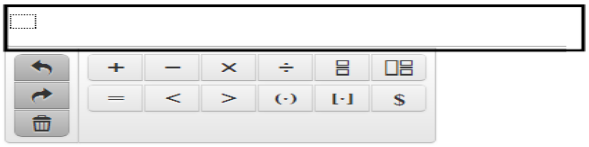
4. Which numbers have the digit “4” in the stated place value.



Tens	Thousands	Hundred-thousands	Hundreds

4.NF.3.a

5. Enter **only** the fraction. Solve. $\frac{11}{12} - \frac{5}{12}$



4.NBT.6

6. Circle the symbols makes this equation true?

Choose
3
7
10

x
÷
+
-
=

x
÷
+
-
=

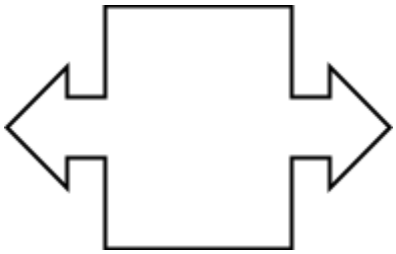
Choose
3
7
10

948 6 158

Choose
3
7
10

4.G.3

7. How many lines of symmetry does this figure have?



- A. 0
- B. 1
- C. 2
- D. more than 2

4.NF.2

8. Compare the fractions.

> = <

$\frac{5}{8}$ $\frac{3}{4}$

4.NF.6

9. Consider the numbers written below. Select the decimal part equivalent to $\frac{58}{100}$

- A. 5.8
- B. 0.58
- C. 0.058
- D. 580.08

4.0A.4

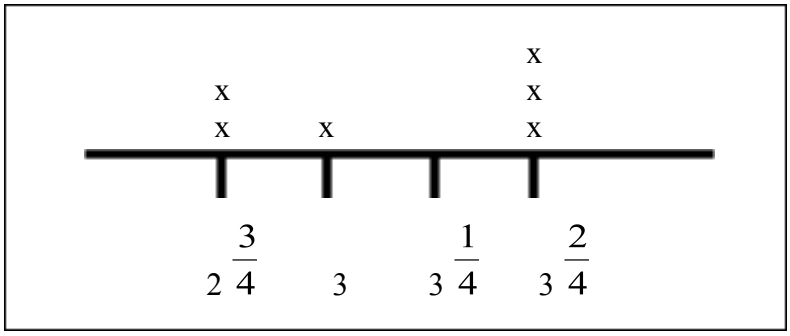
10. Which numbers are multiples of 6 and which numbers are multiples of 8?
(**NOTE**: Selections can be used more than once)

Multiples of 6	**Multiples of 8**

72 48 88 92 86 11/2 96 90

4.MD.4

11. Sam measured the length of his crayons. The lengths of the crayons are shown in inches on the line plot below:



Choose **two** statements that are true.

☐ A. The difference between the shortest and tallest is ½ inch.

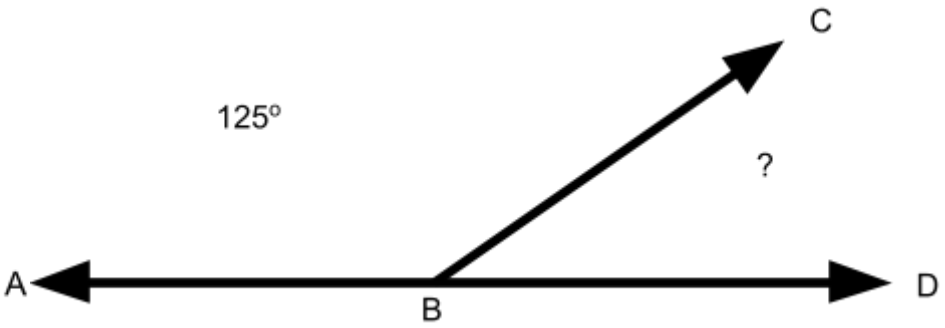
☐ B. The total of the tallest crayons is 10 ½ inches.

☐ C. The total height of all the crayons is 9 ¼ inches.

☐ D. The number of crayons over 3 inches is greater than the number of crayons under 3 inches.

☐ E. The total height of the shortest crayons is 5 3/4 inches.

12. If angle ABC measures 125°, what does angle CBD measure?
Choose **two** correct selections.



☐ A. 360° – 125°

☐ B. 180° -125°

☐ C. 55°

☐ D. 65°

☐ E. 235°

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Lesson 2: Implement the Pre-Assessment of Type I Questions

ANSWER KEY

<table>
<tr><th>Item</th><th>Answer</th></tr>
<tr><td>1</td><td>A C</td></tr>
<tr><td>2</td><td>
<table>
<tr><th>Input</th><th>Output</th></tr>
<tr><td>5</td><td>25</td></tr>
<tr><td>6</td><td>30</td></tr>
<tr><td>7</td><td>35</td></tr>
<tr><td>9</td><td>45</td></tr>
</table>
</td></tr>
<tr><td>3</td><td>B C</td></tr>
<tr><td>4</td><td>
<table>
<tr><th>Tens</th><th>Thousands</th><th>Hundred-thousands</th><th>Hundreds</th></tr>
<tr><td>9,549</td><td>5, 234,899</td><td></td><td>1, 233, 480</td></tr>
</table>
343,688 23,845,623 4,622,801 67, 114
</td></tr>
<tr><td>5</td><td>$\frac{6}{12}$ or equivalent</td></tr>
<tr><td>6</td><td>948 ÷ 6 = 158</td></tr>
<tr><td>7</td><td>C</td></tr>
<tr><td>8</td><td><</td></tr>
<tr><td>9</td><td>B</td></tr>
<tr><td>10</td><td>
<table>
<tr><th>Multiples of 6</th><th>Multiples of 8</th></tr>
<tr><td>96 72 48 112 90</td><td>72 48 88 112 96</td></tr>
</table>
92 86
</td></tr>
<tr><td>11</td><td>B D</td></tr>
<tr><td>12</td><td>B C</td></tr>
</table>