

Open-Ended Template

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Grade Level: PreK-2

Content Area: Linear Measurement

PA Standard(s) addressed:

2.3 Measurements and Estimation

2.3.3 A. Compare measurable characteristics of different objects on the same dimension.

2.3.3 B. Determine the measurement of objects with non-standard and standard units.

NCTM Standard(s) addressed:

Measurement Standard:

- Understand measurable attributes of objects and the units, systems, and processes of measurement.
- Apply appropriate techniques, tools, and formulas to determine measurements.

Problem Name: Are you a Measuring Maniac?

Problem: Using the items given, you need to measure the items and decide which 2 items combined will have the greatest length.

Directions.

- A. You have a pencil, a paperclip, a crayon, and a marker. Use your 12-inch ruler to measure the items. List each item in the table and record the lengths.

Items	Measurements

- B. Which two items would you add together to get the greatest length?
Explain how you got your answer.

Problem Solution(s):

- A. The following should be expected as the acceptable answer for Part A:

Items	Measurements
Crayon	4 inches
Pencil	8 inches
Paper Clip	1 inch
Marker	6 inches

- B. The following should be expected as an acceptable answer for Part B:

The pencil and the marker have the greatest length. I looked at my table and chose the two items that were the longest and added them together.

Pencil	8 inches
Marker	<u>+6 inches</u>
	14 inches

Specific Rubric:

5. Advanced Understanding:

- A. All items are listed, measured, and labeled correctly.
- B. Correctly identified the 2 items that provide the greatest length when their measurements are added, and all steps are clearly and correctly explained.

4. Satisfactory Understanding:

- A. Items are listed, measured, and labeled with one error.
- B. Correctly identified the 2 items that provide the greatest length when their measurements are added, and most steps are clearly and correctly explained.

3. Almost Satisfactory Understanding:

- A. Items are listed, measured, and labeled with 2-3 errors.
- B. Identified 2 items, but when added together did not equal the greatest length and some steps are explained.

2. Partial Understanding:

- A. Items are listed, measured, and labeled with 4 errors.
- B. Identified 2 items, but when added together did not equal the greatest length and the explanation is unclear.

1. Minimal Understanding:

- A. Items are listed, measured, and labeled with 5 or more errors.
- B. Identified only 1 item, and little or no explanation is given.

0. No Understanding:

- A. No items are listed, labeled or measured.
- B. No items were identified