

Name \_\_\_\_\_ Date \_\_\_\_\_

Note: Students need a centimeter ruler and 6 small paper clips to complete the assessment.

1. Use your ruler to find the length of the pencil and the crayon.



- a. How long is the crayon? \_\_\_\_\_ centimeters
- b. How long is the pencil? \_\_\_\_\_ centimeters
- c. Which is longer?      pencil      crayon
- d. How much longer? \_\_\_\_\_ centimeters

2. Samantha and Bill are having a bean bag throwing contest and need to measure each of their throws.



- a. Circle the most appropriate tool to measure their throws.

ruler

paper clips

meter stick

centimeter cubes

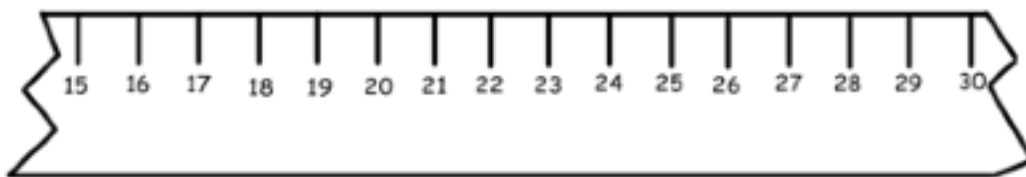
- b. Explain your choice using pictures or words.

- c. Bill throws his bean bag 5 meters, which is 2 meters farther than Samantha threw her bean bag. How far did Samantha throw her bean bag? Draw a diagram or picture to show the length of their throws.

- d. Sarah threw her bean bag 3 meters farther than Bill. Who won the contest? How do you know?

3. Use the broken centimeter ruler to solve the problem.

A grasshopper jumped 7 centimeters forward and 4 centimeters back and then stopped. If the grasshopper started at 18, where did the grasshopper stop? Show your work.



4.

**Vanessa's Ribbons**



- a. Measure the length of Ribbon A with your centimeter ruler and your paper clip. Write the measurements on the lines below.

\_\_\_\_\_ centimeters

\_\_\_\_\_ paper clips

- b. Explain why the number of centimeters is larger than the number of paper clips. Use pictures or words.

- c. Estimate the length of Ribbon B in paper clips.

\_\_\_\_\_ paper clips

- d. How much longer is Ribbon A than Ribbon B? Give your answer in centimeters.

- e. Vanessa is using the ribbons to wrap a gift. If she tapes the ribbons together with no overlap, how many centimeters of ribbon does she have altogether?

- f. If Vanessa needs 20 centimeters of ribbon, how much more does she need?

### End-of-Module Assessment Task Standards Addressed

### Topics A–D

#### Measure and estimate lengths in standard units.

- 2.MD.1** Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
- 2.MD.2** Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.
- 2.MD.3** Estimate lengths using units of inches, feet, centimeters, and meters.
- 2.MD.4** Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

#### Relate addition and subtraction to length.

- 2.MD.5** Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.
- 2.MD.6** Represent whole numbers as lengths from 0 on a number line diagrams with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole number sums and differences within 100 on a number line diagram.

## Evaluating Student Learning Outcomes

A Progression Toward Mastery is provided to describe steps that illuminate the gradually increasing understandings that students develop *on their way to proficiency*. In this chart, this progress is presented from left (Step 1) to right (Step 4). The learning goal for each student is to achieve Step 4 mastery. These steps are meant to help teachers and students identify and celebrate what the student can do now, and what they need to work on next.

## A Progression Toward Mastery

Assessment Task Item	STEP 1 Little evidence of reasoning without a correct answer.  (1 Point)	STEP 2 Evidence of some reasoning without a correct answer.  (2 Points)	STEP 3 Evidence of some reasoning with a correct answer or evidence of solid reasoning with an incorrect answer. (3 Points)	STEP 4 Evidence of solid reasoning with a correct answer.  (4 Points)
1  2.MD.1 2.MD.4	The student gets one of the four parts correct.	The student gets two of the four parts correct.	The student gets three of the four parts correct.	The student correctly: <ul style="list-style-type: none"> <li>Measures the crayon as 9 cm.</li> <li>Measures the pencil as 11 cm.</li> <li>Determines that the pencil is longer.</li> <li>Determines the difference in length between the pencil and crayon is 2 cm.</li> </ul>
2  2.MD.1 2.MD.5	The student gets one of the four parts correct.	The student gets two of the four parts correct.	The student gets three of the four parts correct.	The student correctly: <ul style="list-style-type: none"> <li>Identifies meter stick as the tool for measurement.</li> <li>Gives appropriate reasoning for selecting the meter stick.</li> <li>Student accurately represents the comparison of the throws with a picture and answers that Samantha threw her bean bag 3 meters.</li> <li>Correctly identifies Sarah as the winner.</li> </ul>
3  2.MD.6	<ul style="list-style-type: none"> <li>The student shows no movement on the ruler.</li> <li>The student is</li> </ul>	<ul style="list-style-type: none"> <li>The student shows only one movement on the ruler.</li> <li>Student correctly</li> </ul>	<ul style="list-style-type: none"> <li>The student shows only one movement on the ruler.</li> <li>Correctly identifies</li> </ul>	The student correctly: <ul style="list-style-type: none"> <li>Uses centimeter ruler as a number line, showing</li> </ul>



## A Progression Toward Mastery

	unable to answer the question correctly.	adds 7 but does not subtract 4.	the grasshopper stopped at 21 cm.	movement forward and backward as adding and subtracting. <ul style="list-style-type: none"> <li>Correctly identifies the grasshopper stopped at 21 cm.</li> </ul>
<b>4</b>  <b>2.MD.1</b> <b>2.MD.2</b> <b>2.MD.3</b> <b>2.MD.4</b> <b>2.MD.5</b>	The student gets one part correct.	The student gets two to three of the six parts correct.	The student gets four to five of the six parts correct.	The student: <ul style="list-style-type: none"> <li>Correctly measures length of Ribbon A in both centimeters and paper clips.</li> <li>Provides an accurate explanation of why there is a larger number of centimeters.</li> <li>Provides an appropriate estimate for Ribbon B in paper clips.</li> <li>Identifies that Ribbon A is 5 cm longer than Ribbon B.</li> <li>Determines total length of both ribbons taped together.</li> <li>Correctly identifies 4 cm more ribbon are needed.</li> </ul>

Name Joshua

Date \_\_\_\_\_

1. Use your ruler to find the length of the pencil and the crayon.



a. How long is the crayon? 9 centimeters

b. How long is the pencil? 11 centimeters

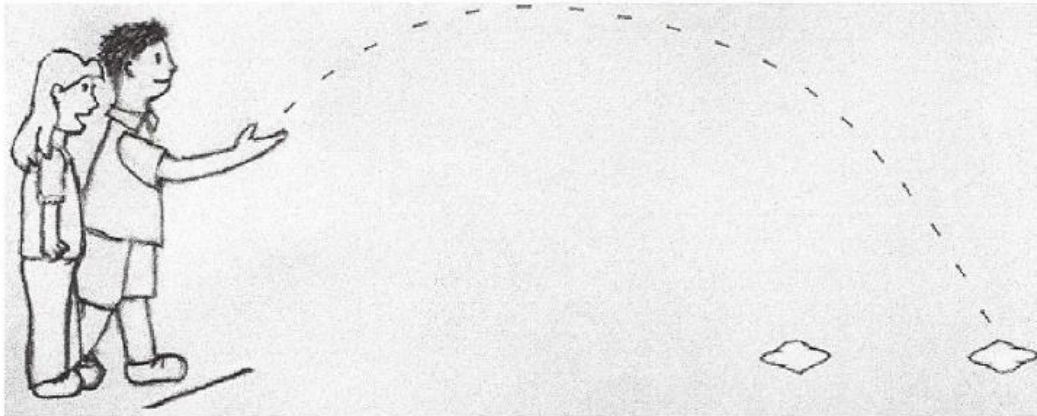
c. Which is longer? pencil crayon

d. How much longer? 2 centimeters

$$\begin{array}{r} 11 - 9 = 2 \\ \begin{array}{r} 10 \quad \overset{\wedge}{1} \\ 10 - 9 = 1 \\ 1 + 1 = 2 \end{array} \end{array}$$



2. Samantha and Bill are having a bean bag throwing contest and need to measure each of their throws.



- a. Circle the most appropriate tool to measure their throws.

ruler

paper clips

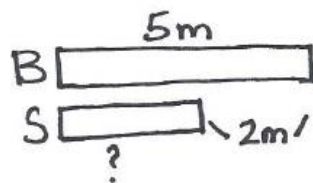
meter stick

centimeter cubes

- b. Explain your choice using pictures or words.

Samantha and Bill threw their bean bags far so a meter stick is most appropriate since it has the longest length-unit.

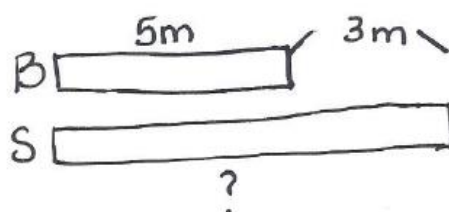
- c. Bill throws his bean bag 5 meters, which was 2 meters farther than Samantha threw her bean bag. How far did Samantha throw her bean bag? Draw a diagram or picture to show the length of their throws.



$$5 - 2 = 3$$

Samantha threw her bean bag 3 meters.

- d. Sarah threw her bean bag 3 meters farther than Bill. Who won the contest? How do you know?



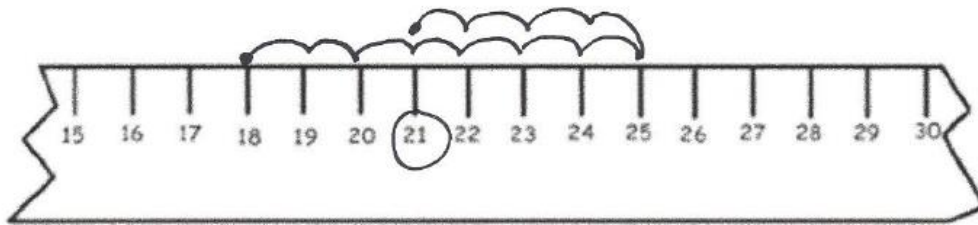
$$5 + 3 = 8$$

Sarah won the contest because she threw her bean bag 8m which is farther than anyone else.

3. Use the broken centimeter ruler to solve the problem.

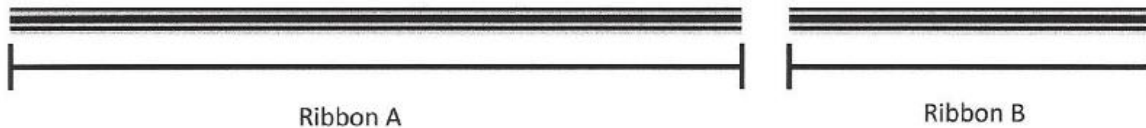
A grasshopper jumped 7 centimeters forward and 4 centimeters back and then stopped. If the grasshopper started at 18, where did the grasshopper stop? Show your work.

$$18 + 7 = 25 \quad 25 - 4 = 21 \quad \text{The grasshopper stopped at 21 cm.}$$



- 4.

Vanessa's Ribbons



- a. Measure the length of Ribbon A with your centimeter ruler and your paper clip. Write the measurements on the lines below.

10 centimeters

3 paper clips

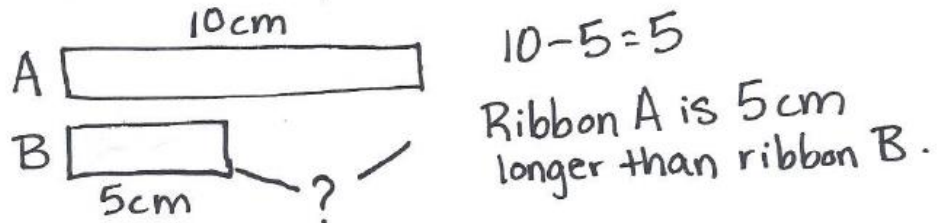
- b. Explain why the number of centimeters is larger than the number of paper clips. Use pictures or words.

Centimeters have shorter length units than paper clips, so more centimeters are needed to measure than paper clips.

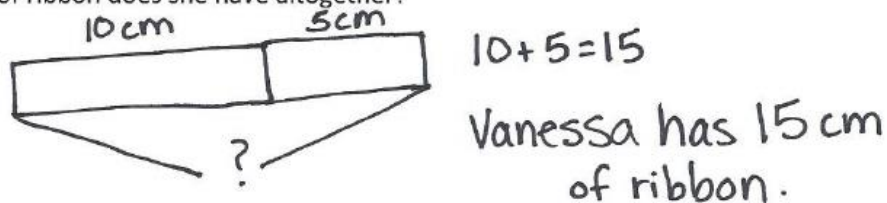
- c. Estimate the length of Ribbon B in paper clips.

2 paper clips

- d. How much longer is Ribbon A than Ribbon B? Give your answer in centimeters.



- e. Vanessa is using the ribbons to wrap a gift. If she tapes the ribbons together with no overlap, how many centimeters of ribbon does she have altogether?



- f. If Vanessa needs 20 centimeters of ribbon, how much more does she need?

$$20 - 16 = 4 \text{ cm}$$

Vanessa needs 4 cm of ribbon.