**Formative Instructional and Assessment Tasks**

|  |  |
| --- | --- |
| **NC.2.MD.10**  **Juan’s Markers** | |
| **Domain** | Measurement and Data |
| **Cluster** | Represent and interpret data. |
| **Standard(s)** | **NC.2.MD.10** Organize, represent, and interpret data with up to four categories.   * Draw a picture graph and a bar graph with a single-unit scale to represent a data set. * Solve simple put-together, take-apart, and compare problems using information presented in a picture and a bar graph. |
| **Materials** | SF, pencil |
| **Task** | Provide the materials to the student. Read the problem to the student: *Juan measured a handful of markers to the nearest inch. He wrote down each marker’s measurement in a table. Make a bar graph to represent the data.*  After the student has created the bar graph and transferred the data say: *Look at your data. How many markers did Juan measure?* Then say: *Describe your data in at least 2 different ways.* |

|  |  |  |
| --- | --- | --- |
| **Continuum of Understanding** | | |
| **Not Yet Proficient** | * Provide instruction on reading and answering questions about bar graphs with three categories. (1st grade NC.1.MD.4) | Checklist for teacher to identify mastery of standard:   * Correctly answers 10 markers * Describes the data in at least two ways |
| **Progressing** | * Incorrectly creates a bar graph. * Inaccurately transfers the data collected to a bar graph. * Determines the total number of markers as an amount other than 10. * Description of data is minimal or incorrect. |
| **Meets Expectation** | * Correctly transfers all data to the bar graph correctly. * Correctly answers the question: 10 markers * Describes the data in at least 2 different ways (e.g., states amount for each category, notices similarities and differences between category counts, compares categories- more/less) |

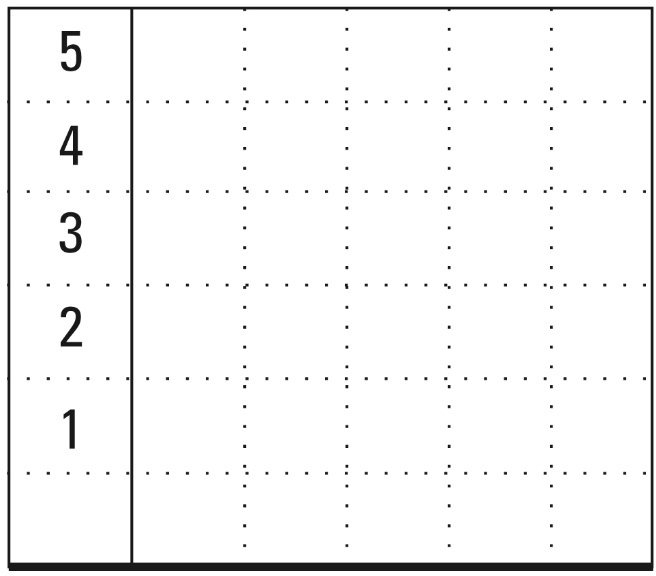
|  |
| --- |
| **Standards for Mathematical Practice** |
| **1. Makes sense and perseveres in solving problems.** |
| **2. Reasons abstractly and quantitatively.** |
| 3. Constructs viable arguments and critiques the reasoning of others. |
| 4. Models with mathematics. |
| 5. Uses appropriate tools strategically. |
| **6. Attends to precision.** |
| 7. Looks for and makes use of structure. |
| 8. Looks for and expresses regularity in repeated reasoning. |

**Juan measured a handful of markers to the nearest inch. He wrote down each marker’s measurement in a table.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Juan’s Marker Measurements** | | | | | | | | | |
| **9** | **5** | **6** | **8** | **9** | **6** | **8** | **8** | **8** | **8** |

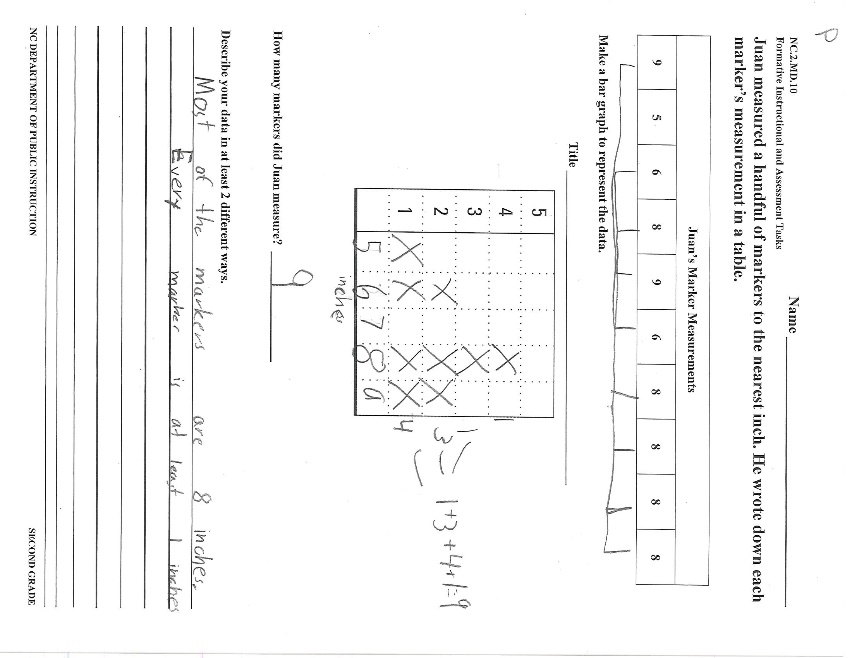
Make a bar graph to represent the data.

Title \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



How many markers did Juan measure?

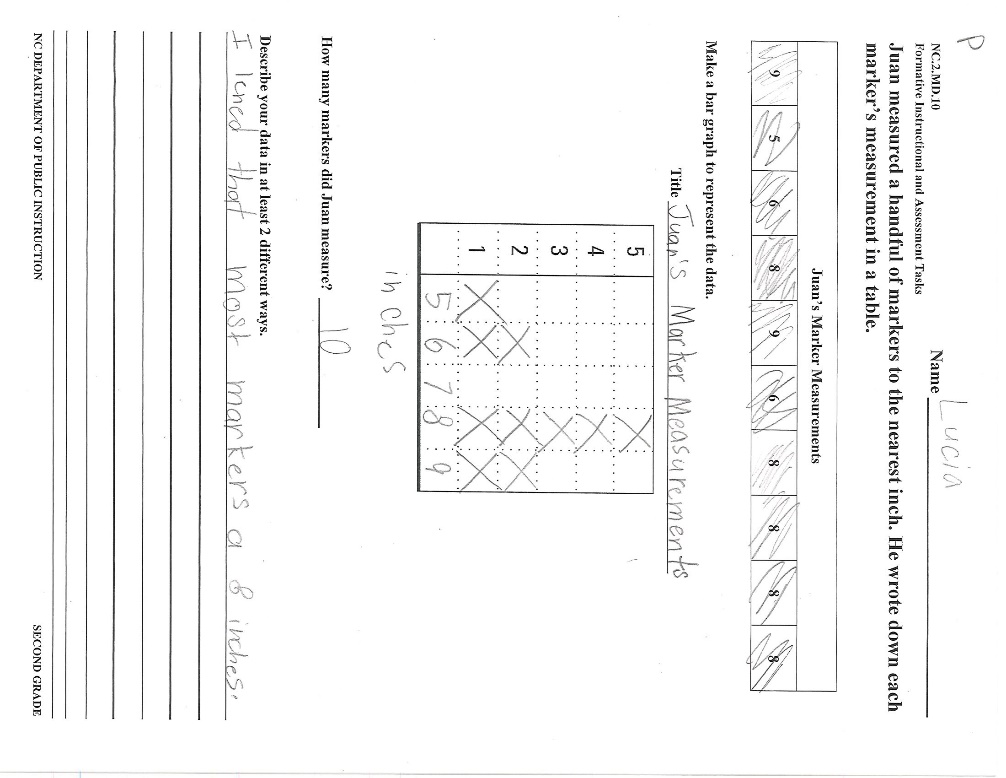
Describe your data in at least 2 different ways.



Scoring Examples

**Progressing:**

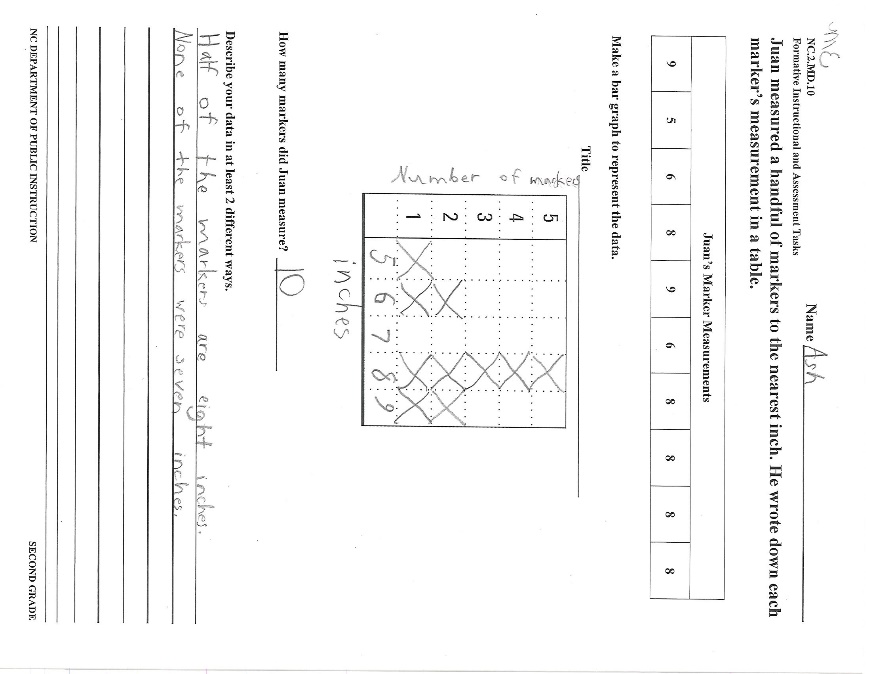
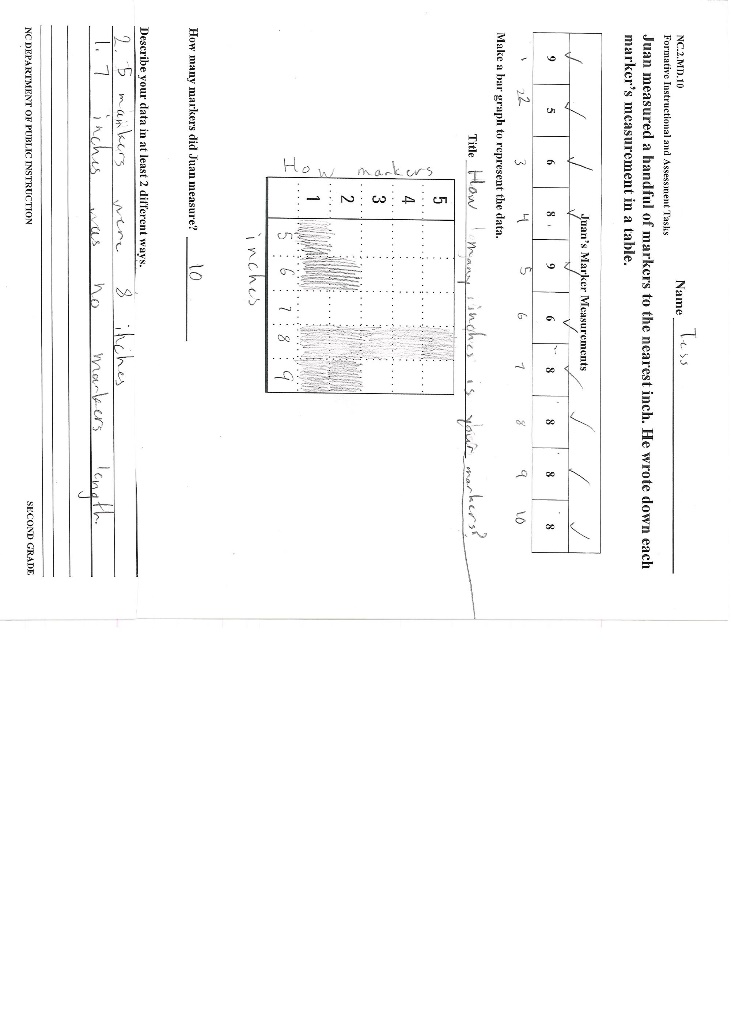
This work describes the data two different ways. There should be 5 markers that are 8 inches. The answer for the total number of markers should be 10.



This work has all the data entered correctly. She wrote one

description of the data rather than two descriptions.

**Meets Expectation:**

Both of these examples have the data recorded correctly, a correct answer (10 markers) and two different ways to describe the data.