

PRE TEST KEY

Picking Berries: Connection Between Data Collection, Graphing, and Measuring

Math in a Cultural Context*

UNIVERSITY OF ALASKA FAIRBANKS

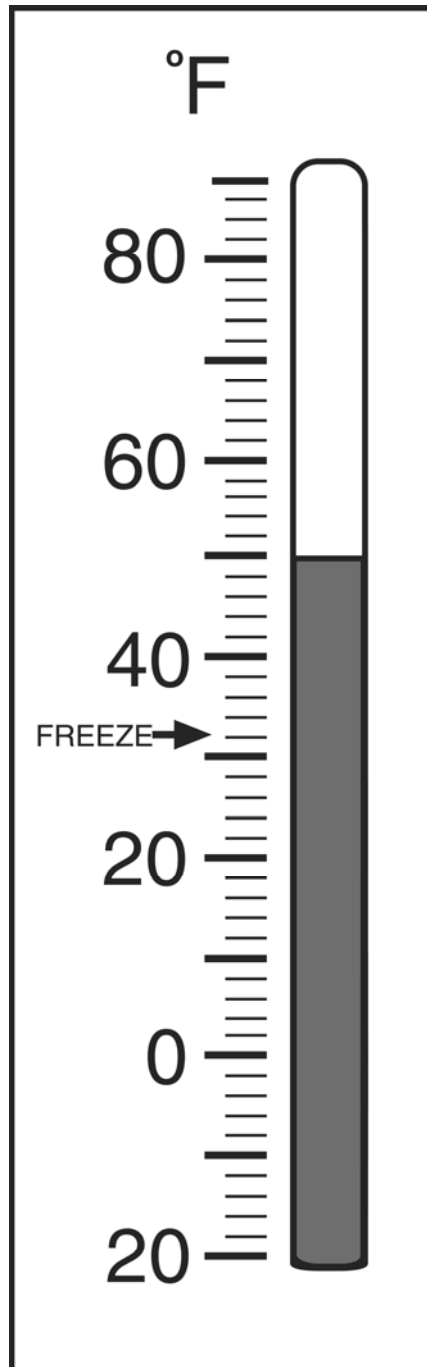
| |
|----------------------------------|
| Student Name: PRETEST KEY |
| Grade: |
| Teacher: |
| School: |
| Location of School: |
| Date: |

*This project has been funded by the U.S. Department of Education, *Returning the Gift: Systemic Implementation of an Effective Culturally Based Math Curriculum and Professional Development Program*, Jerry Lipka, P.I.

Total Score:

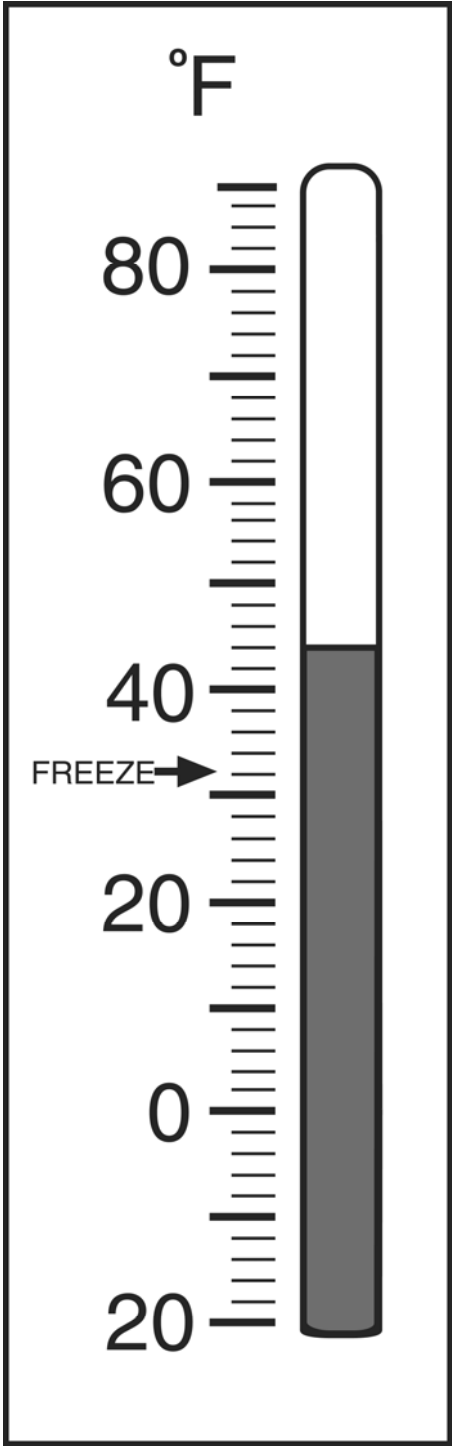
PRE-TEST

1a. What temperature is shown on the thermometer?



Write the temperature here 50°F

1b. What temperature is shown on the thermometer?



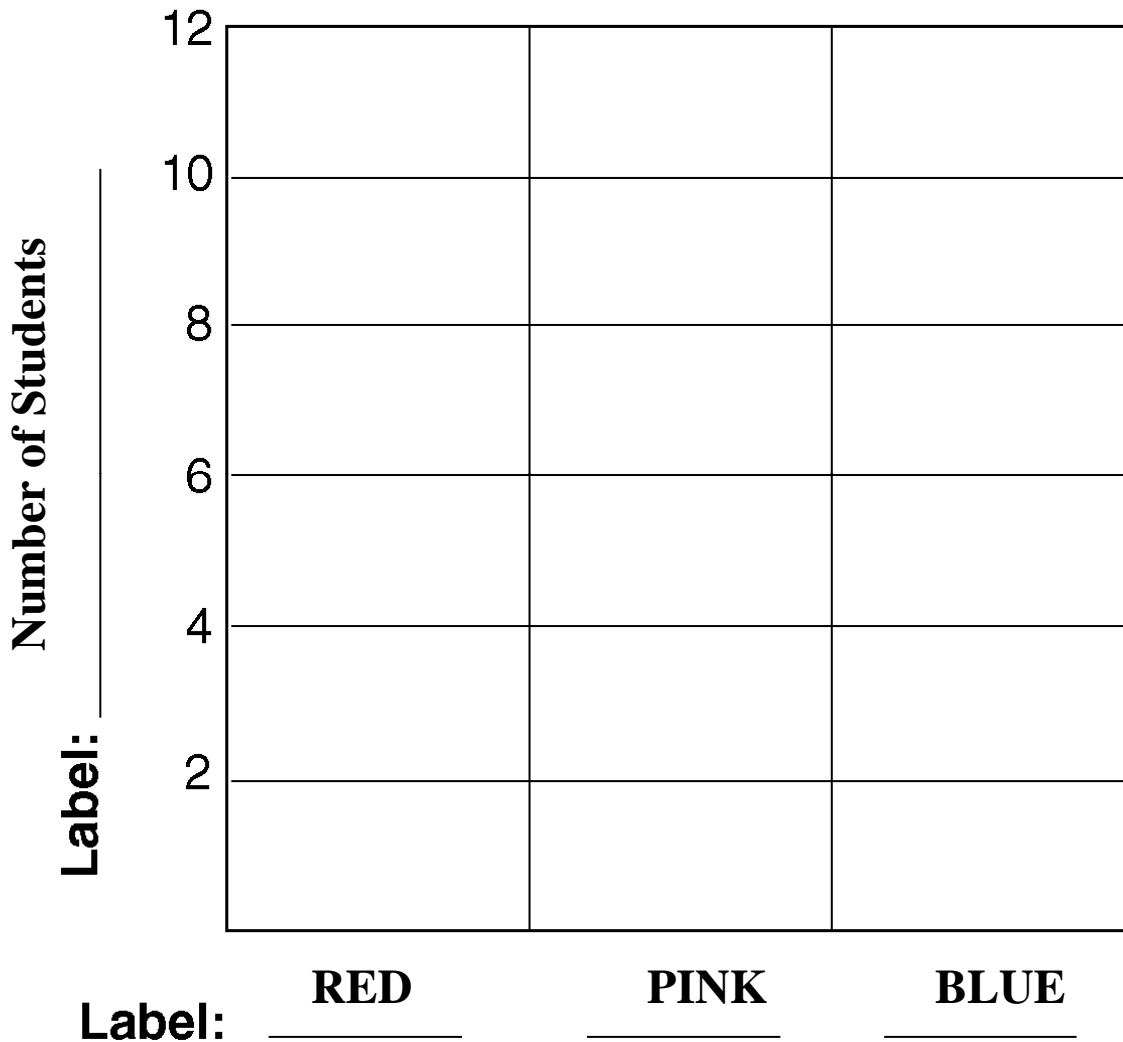
Write the temperature here 44 °F

2. Below is a grid. Place the letter K in the space 3C.




| | | | | |
|---|---|---|---|---|
| D | | | | |
| C | | | K | |
| B | | | | |
| A | | | | |
| | 1 | 2 | 3 | 4 |
















3. The students voted for their favorite colors: 8 liked red, 2 liked pink, and 5 liked blue. Fill in this graph. Give it a title and fill in the labels.

Title: Students' Favorite Colors



Shade in appropriate heights of columns for
RED = 8
PINK = 2
BLUE = 5

4. The calendar shows the number of days that it was sunny () , cloudy () , and rainy () .

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|--|--|---|---|--|--|---|
| 1 | 2 | 3  | 4  | 5  | 6 | 7  |
| 8 | 9  | 10 | 11 | 12  | 13  | 14  |
| 15  | 16 | 17 | 18 | 19  | 20 | 21  |
| 22 | 23 | 24 | 25 | 26  | 27 | 28  |
| 29  | 30  | | | | | |

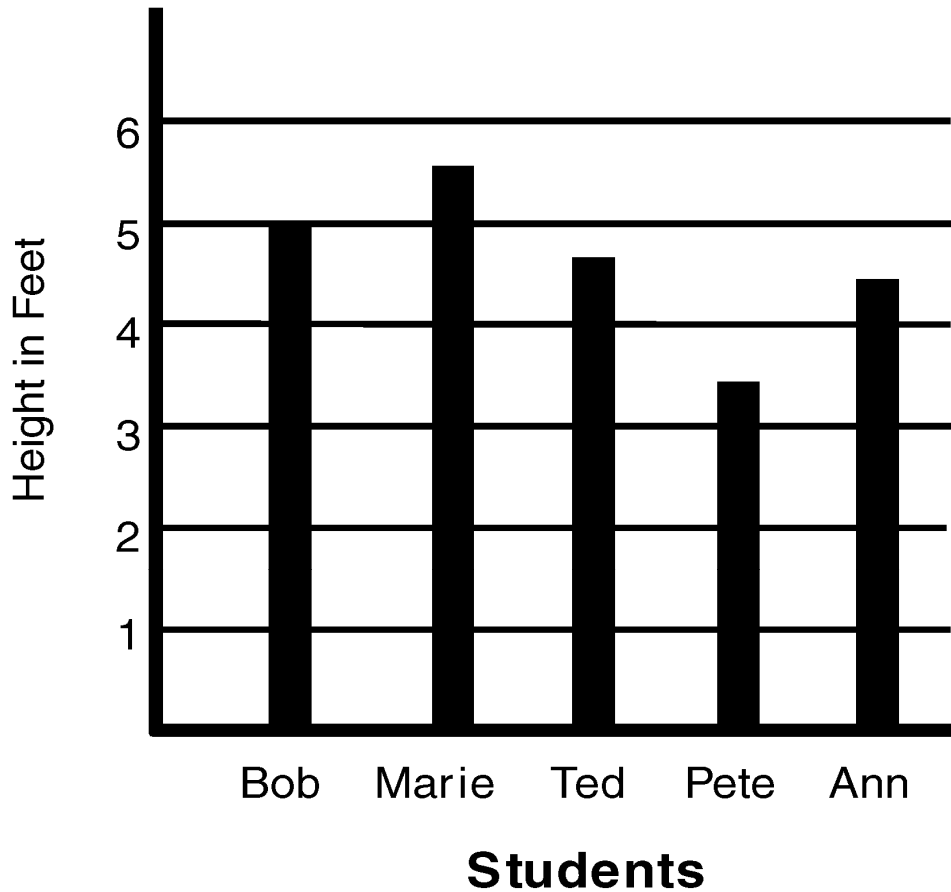
- How many days was it sunny? 4
- How many days was it cloudy? 8
- How many days was it rainy? 3
- Make a table to show the number of days of sun, clouds, and rain, and write a title for the table.

Title: E.g., “Number of Sunny, Cloudy, Rainy Days” or “Weather”

| SUNNY | CLOUDY | RAINY |
|-------|--------|-------|
| 4 | 8 | 3 |






5. Below is a graph showing the height of students.

Height of Students



- Name the tallest student: Marie
- Name the shortest student: Pete
- Name the students who are taller than Ann:
Bob, Marie, Ted

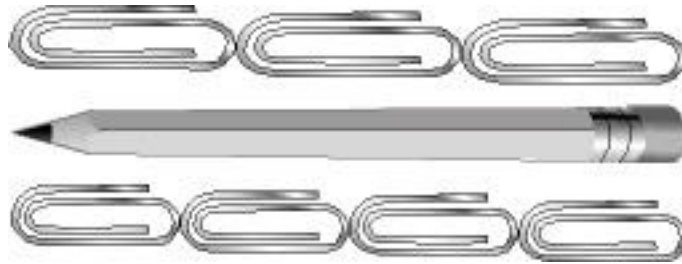
6. Use the following table to answer the questions below.

| Days | Weather | Temperature |
|-----------|---|-------------|
| Monday |  | 50°F |
| Tuesday |  | 40°F |
| Wednesday |  | 35°F |
| Thursday |  | 38°F |
| Friday |  | 45°F |

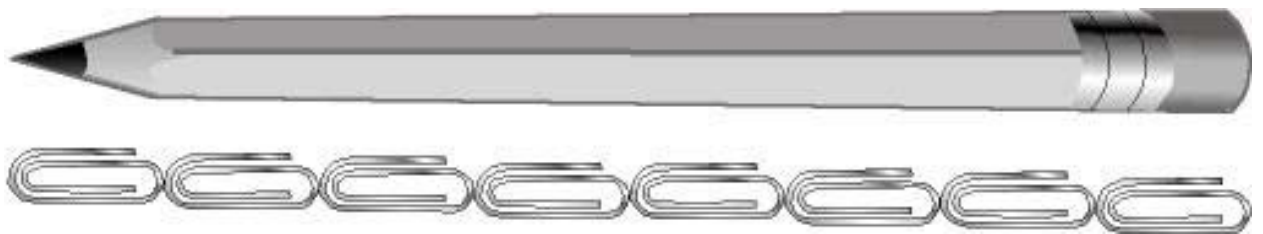
Circle true or false to answer the questions.

- a. Wednesday was 35° F. **True**
- b. Thursday was the warmest day. **False**
- c. Monday was cloudy. **False**
- d. Tuesday was sunny. **False**
- e. Wednesday was the coldest day of the school week. **True**

7. Above the pencil is a row of large paper clips the same length as the pencil. Below the pencil is another row of smaller paper clips the same length as the pencil.



- a. How many large paper clips long is the pencil? 3
- b. How many small paper clips long is the pencil? 4
- c. Pete measured the pencil below with the smaller paper clips and found it was 8 paper clips long. How many large paper clips long is Pete's pencil? 6

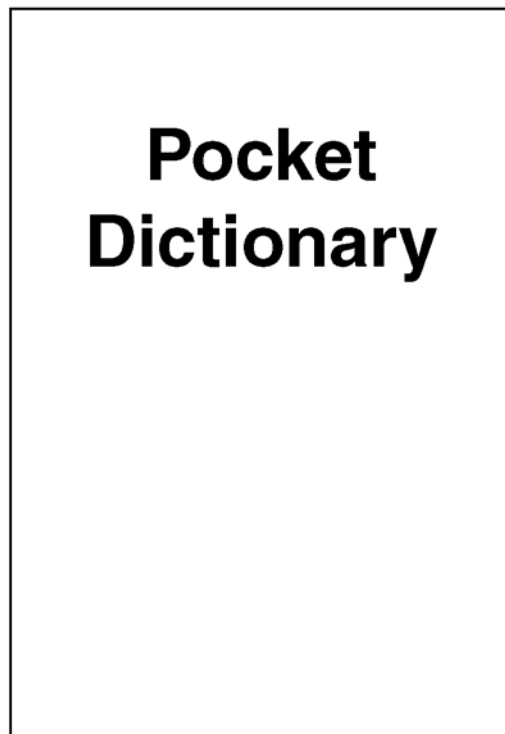


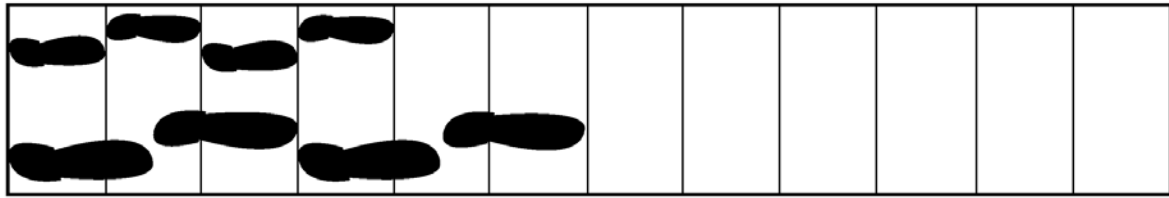
8. Sophie is trying to measure this book with her ruler. She says the book is 8 centimeters long. Do you agree?

a. No

If you disagree with Sophie, what is the length of the book?

b. Write your answer here: 6 cm.



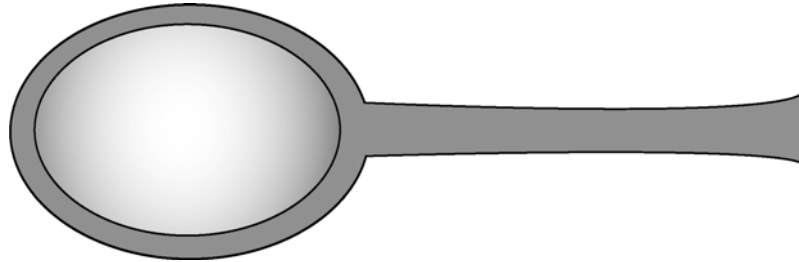


9. Mary and Dad are walking on the boardwalk with their muddy boots. Mary has smaller feet. Her footprints are on top. Dad's bigger footprints are on the bottom.

a. How many of Mary's footprints will fit on the boardwalk? **12**

b. How many of Dad's footprints will fit on the boardwalk? **8**

10. Tim broke his ruler, but he uses the broken ruler to measure the spoon anyway.



Use the broken ruler to measure the spoon.

How long is the spoon? **4** units long

11. Use the regular ruler that is not broken to measure the lines.

a. How long is the black line below?



Write your answer here 3 units.

b. How long is the black line below?



Write your answer here 6 units.