SkyMath

End of Unit Assessment

Part 1

Student’s Name__________________________

Grade___________________ Gender: (circle one) F M

School_____________________________________

City_______________________________________

Teacher____________________________________

Date______________________________

Beginning Time_________________ Ending Time_____________
1. a. Record the following temperatures on the Fahrenheit thermometer provided.

(1) 32° F

(2) -4° F

b. Convert the temperatures you recorded to degrees Celsius. Explain how you arrived at your solution.

(1) 32° Fahrenheit = ___ degrees Celsius.

(2) -4° Fahrenheit = ___ degrees Celsius.
2. Compare the SkyMath and Celsius temperature scales below.

a. What does each line (or tick mark) in the °C temperature scale represent? Show your work.

b. Give a rule that would convert SkyMath temperatures to Celsius temperatures. Show your work.
3. Solve the following temperature problems.

a. The record high temperature for the United States, 134°F, was set in Death Valley, California, on July 10, 1913. The record low temperature for the United States, -80°F, was set in Prospect Creek Camp, Alaska, on January 23, 1971. What is the difference between these two record temperatures?

b. At noon on December 24, 1924, the temperature was 63°F in Fairfield, Montana. By midnight, the temperature had dropped 84 degrees. What was the temperature at midnight?
c. (1) On December 25, 1995, the highest temperature in the United States was 86° F, in Honolulu, Hawaii. The lowest temperature was -22° F, in West Yellowstone, Montana. How much warmer was it in Honolulu than in West Yellowstone?

(2) A student from Spain, where temperature is measured in degrees Celsius, is planning a December visit to Yellowstone Park near West Yellowstone, Montana. She is considering swimming outdoors and does not know what -22° F is like. Give her an estimate of this temperature in °C. What would you tell her about going swimming in this temperature?
4. At 10:00 A.M. on a school day, 9 students in a science class took temperature readings in their classroom using a Fahrenheit thermometer. The temperatures they recorded are displayed below.

125  67  65  68  62  69  62  64  66

a. What is the maximum temperature?

What is the minimum temperature?

What is the range of temperatures?

b. Calculate the mean, median, and mode of the students' temperature data.
c. What do you think could explain the large range of temperatures gathered by the students?

d. Which of these measures of central tendency (mean, median, or mode) best represents the typical temperature in this classroom at 10:00 A.M.? Why?
5. The data below give the weights of some grizzly bears and black bears living in the Rocky Mountains in Montana.

| Grizzly bears | Black bears
<table>
<thead>
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<tbody>
<tr>
<td>Bob</td>
<td>Male</td>
</tr>
<tr>
<td>Rocky</td>
<td>Male</td>
</tr>
<tr>
<td>Sue</td>
<td>Female</td>
</tr>
<tr>
<td>Linda</td>
<td>Female</td>
</tr>
<tr>
<td>Wilma</td>
<td>Female</td>
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<tr>
<td>Ed</td>
<td>Male</td>
</tr>
<tr>
<td>Glenda</td>
<td>Female</td>
</tr>
<tr>
<td>Bill</td>
<td>Male</td>
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a. Organize these data in a way that would help you find which kind of bear is heavier - grizzly bears or black bears. (You can use another piece of paper to do this if you need to. Please be sure to show all of your work and put your name on it.)
b. Write down three things that you can tell about the weights of the bears. (You may use your answer from question 1 to help you)

c. Based on these data, how much heavier is a typical bear of one kind than a typical bear of the other kind?___________

How did you figure out your answer?

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