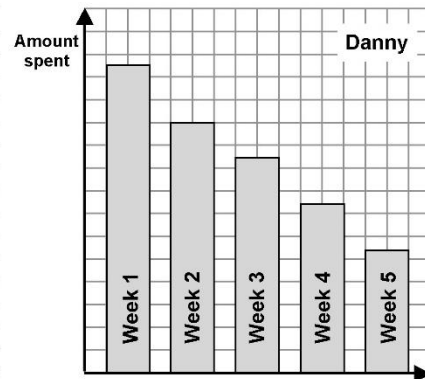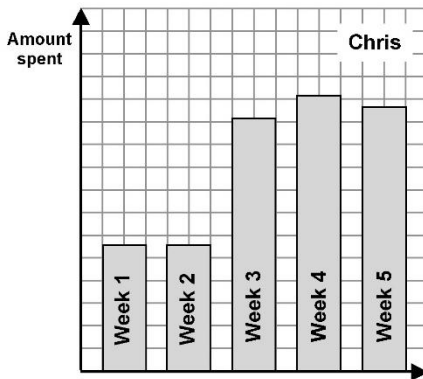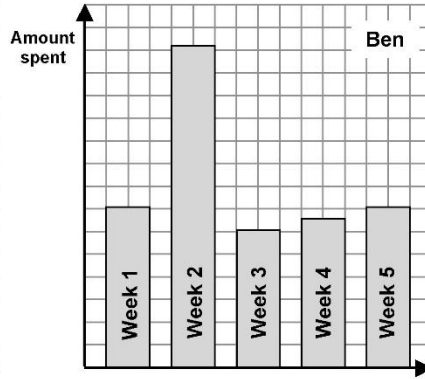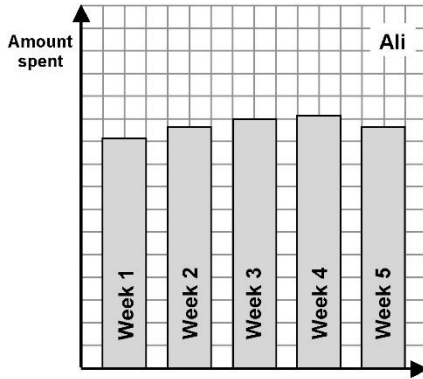# **<u>Data Analysis Review</u>**

<u>Problem 1</u>
These bar charts show how much money four children, Ali, Ben, Chris and Danny, spent each week for five weeks.

1) This is what the four children said about what they had spent.
   Write the correct name next to each statement.

   "I spent less and less money each week."   Name: _____

   "I spent more in the last three weeks than in the first two."   Name: _____

   "I spent about the same amount each week except one week when

       I bought an expensive present for my sister."   Name: _____

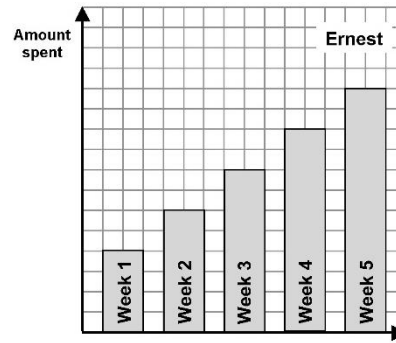   *"I spent about the same amount each week."*   Name: _____

2) a)   Which child spent the most money in the first week?   Name: _____

   b)   Which child spent the most money altogether?   Name: _____

       Show how you know.

3) This bar chart shows how much Ernest spent during the five weeks.

Write a description to fit Ernest's bar chart.

Amount spent   **Ernest**

Week 1   Week 2   Week 3   Week 4   Week 5
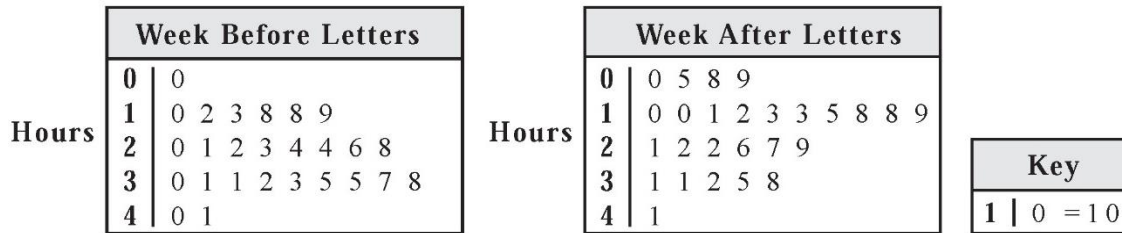
_____

_____

_____

_____

Problem 2

Mrs. Campbell wanted students to decrease the amount of time they watched television. She wrote a series of letters to parents describing activities their children could do rather than watch television.

Mrs. Campbell asked the students to report the number of hours they watched television, both during the week before their parents received the letters and the week after. The information she gathered is displayed in the stem-and-leaf plots below.

Each plot indicates the number of hours each of her 26 students watched television for the week.

Week Before Letters		
0	0	
1	0 2 3 8 8 9	
2	0 1 2 3 4 4 6 8	Hours
3	0 1 1 2 3 5 5 7 8	
4	0 1	

Hours

Week After Letters	
0	0 5 8 9
1	0 0 1 2 3 3 5 8 8 9
2	1 2 2 6 7 9
3	1 1 2 5 8
4	1

Hours

Key
1 │ 0 = 1 0

1) Describe the shapes of the stem-and-leaf plots before and after the letters.

_____

_____

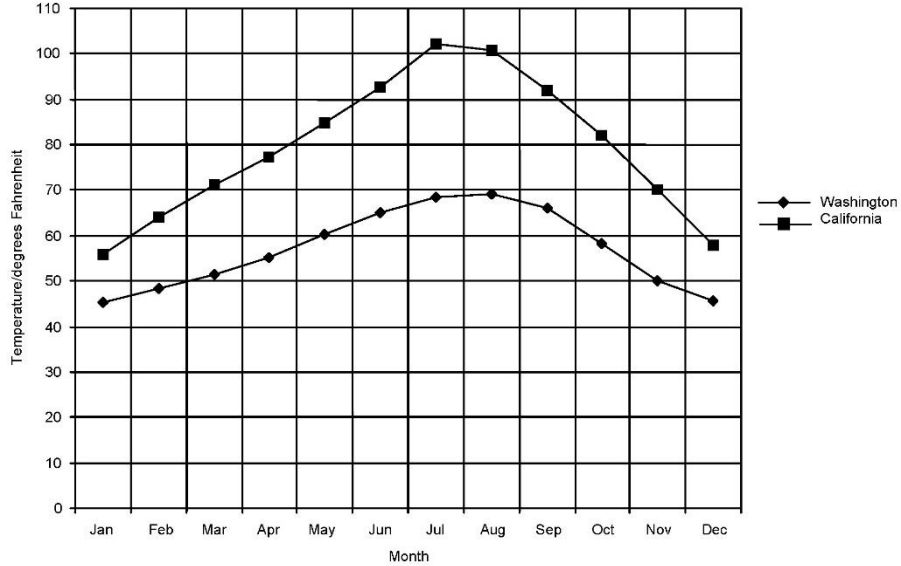2) Find the ranges before and after the letters.

   Before _____   After _____

3) Find the medians before and after the letters.
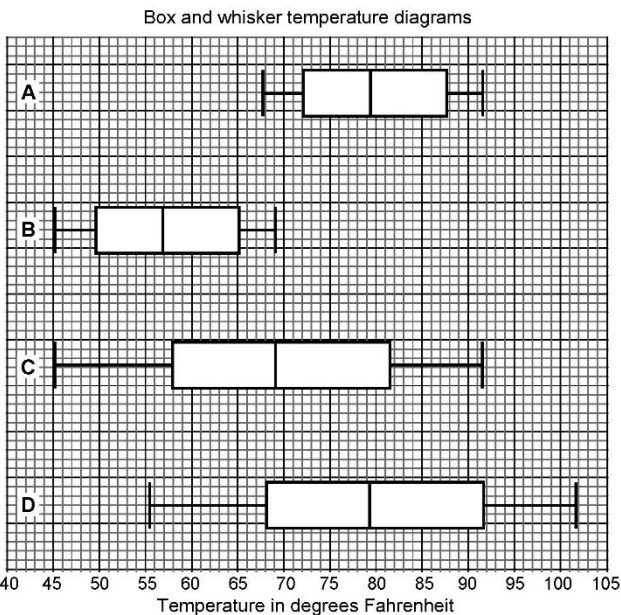
   Before _____   After _____

Problem 3

This graph shows the average highest temperatures for each month of the year for one place in Washington and one place in California.

1) Write a statement about what is the same in the two sets of temperatures.

_____

_____

2) Write a statement about what is different in the two sets of temperatures.

_____

_____

Box and whisker temperature diagrams

3) Which of the four box diagrams shows the Washington temperatures? _____

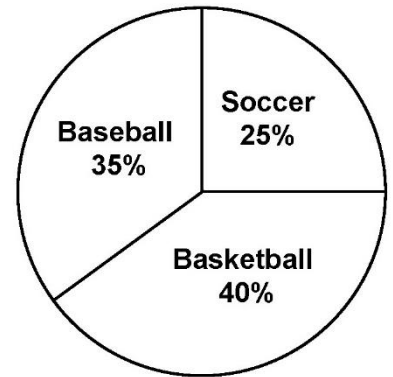   Explain how you decided.

_____

_____

4) Which of the four box diagrams shows the California temperatures? _____

For which months of the year is the monthly temperature for California between the upper and the lower quartiles? Explain how you figured it out.

_____

_____

_____

_____

Problem 4

In Lake City, boys in the 8th grade were also surveyed. The results of this survey are shown in the circle graph below.

1) Seventy-two boys liked basketball best.   How many boys were there in the 8th grade survey? _____
Show your calculations.

The 8th grade baseball teams from Lake City and Appleton plan to play a game.

Luis has seen a survey of Appleton's 8th grade boys' favorite sports. The survey shows that 50% of them like baseball best.

Luis says that this will not be fair because more boys in Appleton like baseball best, so there will be more boys to choose from for the team.
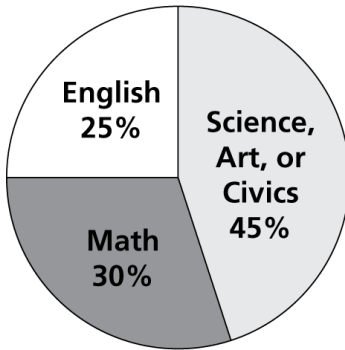
Kyle says he thinks Luis is wrong.

2) Explain why Luis might be wrong in thinking that more boys prefer baseball in Appleton than in Lake City.
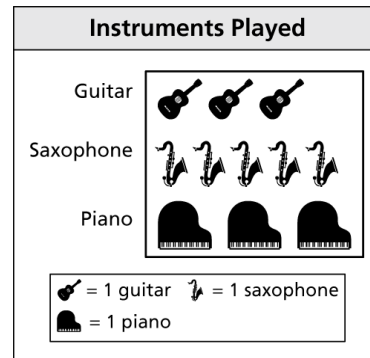
_____

_____

_____

_____

Problem 5

Explain why the data display is misleading.

1) **Favorite Class**

- English 25%
- Science, Art, or Civics 45%
- Math 30%

2) **Instruments Played**

- Guitar
- Saxophone
- Piano

= 1 guitar = 1 saxophone
= 1 piano

Problem 5

You randomly survey students about whether they ate or skipped lunch and breakfast. The results of the survey are shown in the two-way table

		Breakfast		
		Ate	Skipped	Total
Lunch	Ate	40	12	
	Skipped	8	0	
	Total			

1) How many students in the survey skipped breakfast but ate lunch?

2) How many of the students in the survey ate lunch?

3) How many students were surveyed?

4) What percent of students skipped breakfast but ate lunch?