Data Displays Study Guide

- Mean, Median, Mode, Range, Outlier
  - Be able to find the mean, median, mode, and range.
  - Be able to identify outliers
- Histograms
  - Be able to make a histogram.
  - Know what frequency is and how it relates to a histogram.
- Box-and-Whisker Plots
  - Be able to find the Big 5.
    1.
    2.
    3.
    4.
    5.
  - Be able to make a box-and-whisker plot if given a data set.

For exercises 1-4, use the following final exam scores.

75	83	89	92	91	67	97	95	83	81	82	94	98	95
79	82	65	88	84	90	72	70	80	85	98	77	80	80
93	90												

1. Find the median.
2. Find the mode.
3. Find the mean.
4. Is there an outlier? If there is, what is the outlier?

For exercises 5, use the following pizza data set.

Thirty people were surveyed to find out how many times they ate pizza during the month of October. Here are the results:

3	7	12	16	27	8	14	17	22	2	9	5	18	0
10	24	15	13	6	1	28	7	0	10	16	5	24	4
9	14												

5. Make a histogram of the data using the intervals 0-9, 10-19, and 20-29.

For exercises 6 and 7 use the following data sets.

Books read by students during the first semester							
15	20	32	24	18	23	16	24
35	15	20	30	25	19	27	

Books read by students during the second semester							
17	18	35	20	16	14	10	28
32	14	25	30	27	21	16	

6. Make box-and-whisker plots for the number of books read by students during each semester. Use one number line.
7. Write at least two statements comparing data for the two semesters.
    1.

    2.

ARE YOU READY FOR SOME FOOTBALL?

TEAM: Verona Phantoms

NAME: _____

WEEK	DATE PLAYED	OPPONENT	HOME SCORE	OPPONENT SCORE	TOTAL WINS	TOTAL LOSSES	TOTAL GAMES	WINNING % total wins / total games	RATIO WINS:LOSSES
1	9/11	Mt Horeb	16	19	0	1	1	0%	0:1
2	9/17	Oregon	27	0	1	1	2	50%	1:1
3	9/24	Middleton	19	17	2	1	3	66%	2:1
4	10/1	Waunakee	10	23	2	2	4	50%	2:2
5	10/8	Memorial	10	24	2	3	5	40%	2:3
6	10/15	Sun Prairie	10	18	2	4	6	33%	2:4
7	10/22	Bye							
8	10/29	Stoughton	26	24	3	4	7	43%	3:4
9	11/5	Mt. Horeb	15	12	4	4	8	50%	4:4
10	11/12	Sun Prairie	31	21	5	4	9	56%	5:4
11	11/19	East	17	19	5	5	10	50%	5:5
12	11/26	Oregon	31	7	6	5	11	55%	6:5
13	12/3	Waunakee	24	14	7	5	12	58%	7:5
14	12/10	Middleton	28	38	7	6	13	54%	7:6
15	12/17	West	20	37	7	7	14	50%	7:7
16	12/24	Poynette	29	20	8	7	15	53%	8:7
17	12/30	Stoughton	28	27	9	7	16	56%	9:7

Practice Test:

1) Calculate the mean, median, and mode for the scores of the Verona Phantoms.

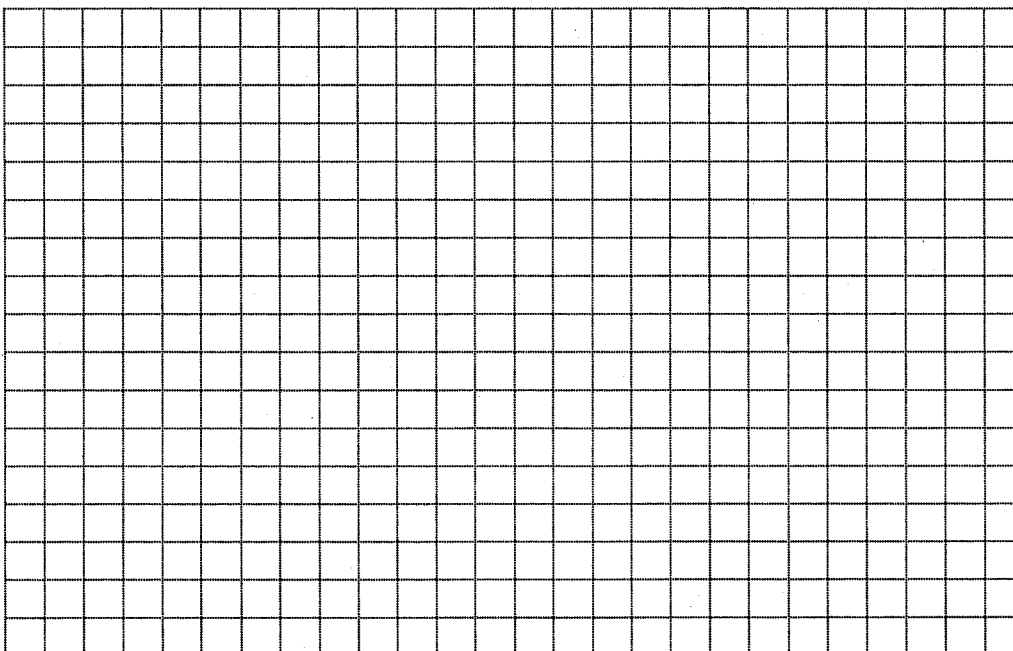   i. Mean _____
     ii. Median _____
    iii. Mode _____

2) SHOW ALL YOUR WORK HERE.

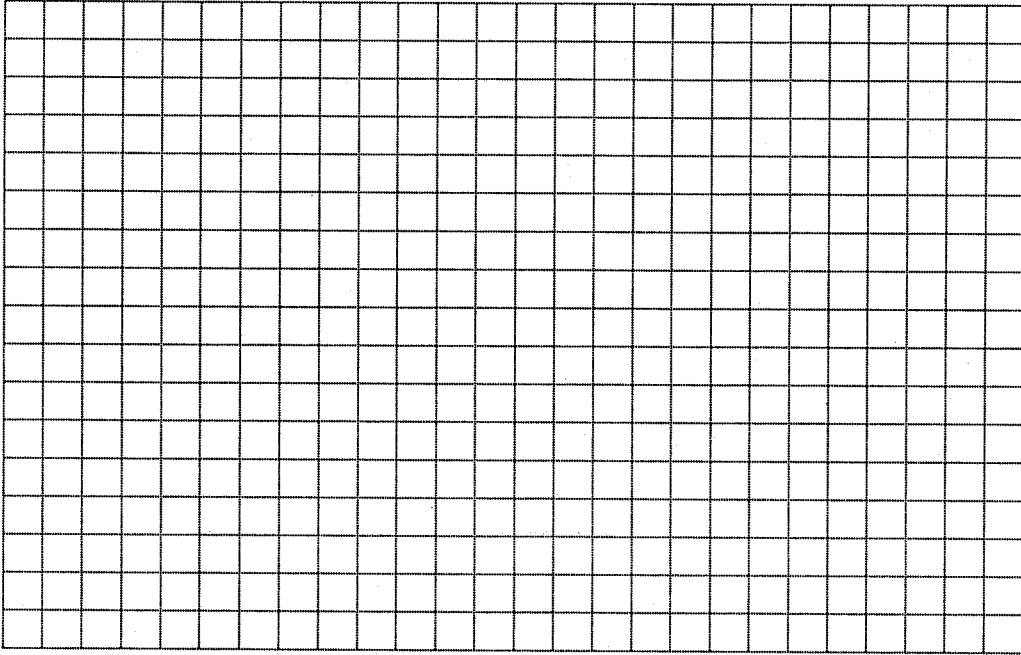3) What is the range of the data set? _____

4) Are their any outliers? (yes or no) _____

5) Construct a histogram for Verona Phantom's scores. Make your histogram on the graph paper. Use intervals of 5.

6) Construct a box-and-whisker plot for Verona Phantom's scores and for their opponent's scores. Make your box-and-whisker on the graph paper.

7) Write a paragraph explaining the steps you took to creating the data display in number 5 or number 6. How could the data display be used?