

# Statistics Review / Practice Test

Show All Work!!!

Name: \_\_\_\_\_

Date: \_\_\_\_\_ Period: \_\_\_\_\_

Copper Mountain Ski Resort has measured the depth of the snowpack (in inches) each February for the past 20 years. The results are given in the following table.

37	52	25	48	26	41	22	15	39	37
52	40	50	37	58	59	51	26	12	20

1. Find the mean, median, mode and range for the data (showing your work).

Mean =

Mode =

Median =

Range =

2. Draw a stem and leaf plot

1	
2	
3	
4	
5	

3. Find the 5-number summary

Minimum: \_\_\_\_\_

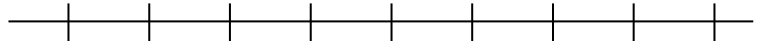
Q<sub>1</sub>: \_\_\_\_\_

Median: \_\_\_\_\_

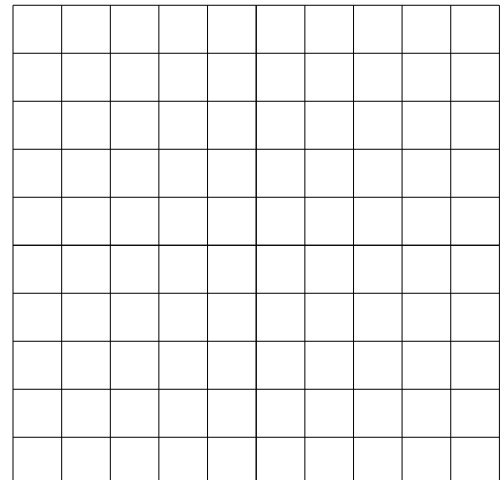
Q<sub>3</sub>: \_\_\_\_\_

Maximum: \_\_\_\_\_

4. Draw a box and whisker plot



5. Draw a histogram of the data.  
Label your graph.



6. Find the 6 missing numbers that have:

Mean = 60, Median = 50, Mode = 20 and Range = 100

Support your work by showing how your numbers meet the criteria.

\_\_\_\_\_

7. Find the mean and standard deviation of the data set 10, 6, 0, 12, 7 to the nearest tenth.  
SHOW what you did to find the answers to each part.

Hint:  $s = \sqrt{\frac{\sum (x - \bar{x})^2}{n - 1}}$

Mean = \_\_\_\_\_

s = \_\_\_\_\_

8. Given a mean test score of 72 and a standard deviation of 8 calculate the following:

a) What would your z-score be  
if you scored an 85 on the test?

b) What would your z-score be  
if you scored an 93 on the test?

c) What would your test score be  
if you had a z-score of -1.2?

d) What would your test score be  
if you had a z-score of 2.4?

9. On an anatomy test, Miguel's z-score is 2.15 and Juanita's is 2.5. Which student performed better on the test and why?
10. If the average height of the Ducks men's basketball team is 78" with a standard deviation of 3.5" and the Ducks women's team is 72" with a standard deviation of 2.5". Compare the heights of a male that is 74" tall to a female that is 69" with respect to their teammates.
11. You took two tests yesterday and scored 86 on each of them. The class average for the math test was 79, with a standard deviation of 5. The class average for the history test was 83, with a standard deviation of 3. Compared to other students in these classes, explain which test did you do the best?
12. Your overall grade is determined from the following percentages: Homework 20%, Tests 70%, Final 10%. You have scored 275 out of 350 points on homework this semester. Your test scores (each out of 100 points) have been 87, 85, 96 and 89.
- What do you need on your 5<sup>th</sup> test (not final) to have a 90% average on your test scores?
  - Assuming you made a 95 on your 5<sup>th</sup> test, what would you need to make on the final to earn an 90% A.
  - Assuming you made a 95 on your 5<sup>th</sup> test, what would you need to make on the final to earn an 80% B.