Mean, Mode, Median, and Range Practice

1) 18, 17, 14, 13, 13, 16, 14

Mean ____ Median ____ Mode _____ Range ____

2) 15, 15, 15, 10, 18, 5 , 17, 9

Mean ____ Median ____ Mode _____ Range ____

3) 18, 19, 13, 15, 10, 12, 17, 16

Mean ____ Median ____ Mode _____ Range ____

4) 20, 8 , 11, 20, 20, 6 , 8 , 6 , 18

Mean ____ Median ____ Mode _____ Range ____

5) 6 , 8 , 9 , 15, 13, 14, 20, 19, 11, 8 , 20

Mean ____ Median ____ Mode _____ Range ____

6) 13, 19, 15, 11, 15, 7 , 18, 8 , 17, 8 , 12

Mean ____ Median ____ Mode _____ Range ____

7) 8 , 11, 9 , 9 , 7 , 6 , 13

Mean ____ Median ____ Mode _____ Range ____

8) 14, 18, 13, 7 , 18, 6 , 20, 6 , 15

Mean ____ Median ____ Mode _____ Range ____

9) 19, 8 , 12, 9 , 13, 17, 16, 14, 17, 11, 18

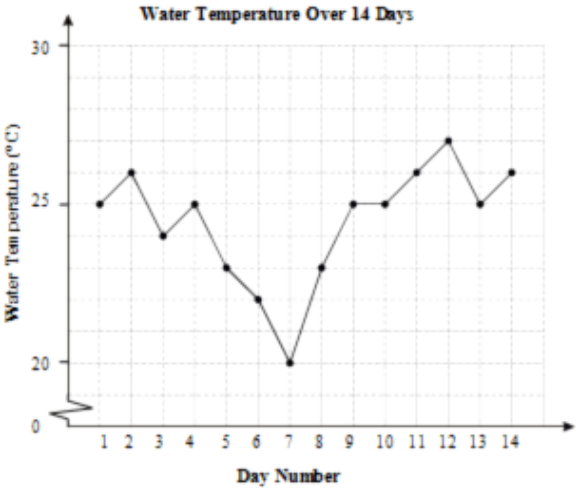
Mean ____ Median ____ Mode _____ Range ____

10) 17, 14, 18, 17, 20, 14, 17, 9 , 18

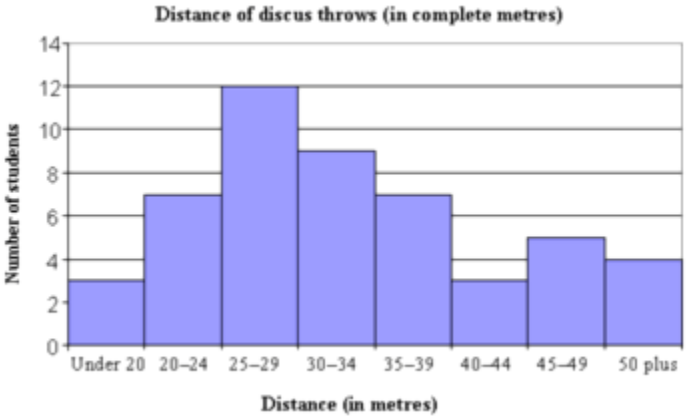
Mean ____ Median ____ Mode _____ Range ____

AP Bio Graph Handout

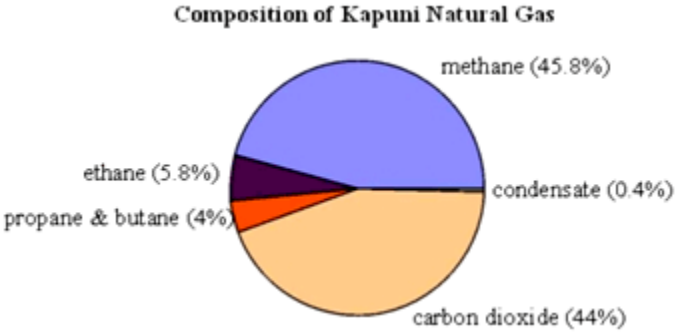
Read the following graphs and answer the questions on a separate sheet of paper.



11) Summarize in one or two sentences what this graph tells you.
12) According to the graph, what days had the highest and lowest water temperatures?
13) What is the independent and dependent variable in this relationship?
14) What is the rate of increase in water temperature from day 7 to day 12?



15) According to the graph, what was the most common distance that a student could throw a discus? What was the least common distance?
16) How many students threw a discus between 35-39 meters? 50 + meters?
17) Can you figure out from the graph how many total students participated in the experiment? If so, how many was it?



18) According to the graph, Kapuni natural gas has the highest content of what? The lowest content?
19) What is the percentage of ethane in Kapuni natural gas? Octane?
20) Why would a pie graph be used for this data instead of a bar graph? Explain.

Graphing Rules:

- The independent variable (what the experimenter controls) is on the X axis, the dependent variable is on the Y axis.
- Label all axes with appropriate units.
- Make sure the numbers on the axes are evenly spaced.
- Make sure the numbers on each axis take up over ½ of the length of the graph paper.
- Connect the dots using a straight edge. The edge of a pencil or your driver's license will work.
- Make sure that there is a title to your graph. The title can always be "Y axis vs. X axis" if you are in doubt.

Draw graphs for the following data on separate graph sheets, and then answer the questions also on the separate sheet.

Graph 1: line graph

Water given (liters/week):	0	2	4	6	8	10	12	14
Avg. Plant Height (cm)	0.0	2.6	4.1	7.8	8.2	11.5	6.4	2.1

Question 1: From looking at your graph, what is the preferable water amount for this plant?
Question 2: What do you predict would be the plant height for a plant that received 9 liters of water per week?

Graph 2: bar graph

Color of cars in lot:	red	blue	green	white	black	brown
Number of cars of each color:	4	7	5	2	10	1

Question 1: From looking at your graph, what color car is most prevalent in the parking lot? The least?
Question 2: From looking at your graph, how many pink cars would you expect to be in the parking lot? Orange cars?

Graph 3: (line of best fit)

Mouse	A	B	C	D	E	F	G	H
Mouse length (inches)	2	4	6	3	2	5	4	8
Running speed (revolutions/min)	45	54	58	43	47	62	45	60

Mouse	I	J	K	L	M	N	O	P
Mouse length (inches)	1	5	2	7	4	3	6	4
Running speed (revolutions/min)	42	52	38	55	48	41	55	47

Question 1: What is the relationship between mouse length and running speed (direct, indirect)?
Question 2: According to your line of best fit, what will the running speed of a mouse be whose length is 4.5 inches? 9.5 inches? What will be the length of a mouse whose running speed is 40 revolutions per minute? 30 revolutions per minute?