GRADE 12 APPLIED
UNIT D – STATISTICS WORKSHEET
MEAN, MEDIAN, MODE, RANGE

Name: _____
Date: _____

For the following data give the Mean, Median and Mode. Round all answers to nearest 0.01 if necessary unless otherwise indicated.
Show all work!

a.   {1, 2, 3, 4, 5}

Mean:

Median:

Mode(s) (if any):

Range:

b.   {1, 2, 3, 4, 5, 6}

Mean:

Median:

Mode(s) (if any):

Range:

c.   {1, 11, 2, 10, 9, 8, 3, 4, 5, 7, 1, 6, 12}

Mean:

Median:

Mode(s) (if any):

Range:

d.   {1, 11, 2, 10, 9, 8, 3, 4, 5, 7, 1, 6, 12, 1}

Mean:

Median:

Mode(s) (if any):

Range:

e.   {2, 5, 8, 18, 14, 8, 12, 3, 1, 1, 1, 3, 4, 4, 8, 8, 7, 6, 5, 8, *145*, 8}

Mean: Median: Mode(s) (if any):   Range:

What would the answers be if that 'outlier' *145* were not there?

Without the 'outlier':

Mean: Median: Mode(s) (if any):   Range:

f.   {2, 2, 2, 2, 2, 2} A *uniform* set   g.   {80, 100, 90, 80, 100}

Mean: Mean:

Median: Median:

Mode(s) (if any):   Mode(s) (if any):

Range: Range:

h.   {2.1, 3.2, 4.5, 4.5, 6.7, 3.2,   i.   {15.6, 13.4, 19.2, 19.2, 23.2,
2.1, 4.5, 25.7}   15.6}

Mean: Mean:

Median: Median:

Mode(s) (if any):   Mode(s) (if any):

Range: Range:

j.   Cassandra did a survey of thirty girls' (sample size 'n' = 30) shoe sizes and got:

6	6	8	9	8	7
6	8	9	9	8	9
5	4	5	6	7	5
8	4	2	8	7	4
4	1	8	10	7	6

What is the mean, median, and mode of the girls' shoe sizes?

Mean: Median: Mode(s) (if any)

l.   Monique has to baby sit her eight young cousins this weekend! She wants to get a sense of what type of activities she will need to plan, what toys to assemble. She wants to know the mean, median, and mode and range of their ages:

{ 2, 2, 8, 12, 4, 4, 7, 4}

Mean: Median: Mode(s) (if any)   Range:

m.   Which age is throwing off the mean (ie: what is the outlier data)? If the outlier was given $15 and sent to the movies with a friend and the friend's mom, what would be the new….:

Mean: Median: Mode(s) (if any)   Range:

Notice the ages are all closer now to a central value, how close data is to a central number is a measure of its 'spread' or 'dispersion' or 'variability' or 'deviation'.

n. **Meaning of Mean**. I like to think of mean as the equal share that everyone would get if they shared. If Cassandra had $12, Monique had $7, and Casey had $41 and they all threw their money in a hat and then got an equal share that would be the mean. The mean makes everyone average!

Mean (or equal share):
Median:
Round to nearest thousandth

p. Find the mean, median, mode, and range of the following:
Round the mean to nearest thousandth.

4	1	2	3	3	3	2	4	5
2	1	3	2	2	3	4	3	1
4	3	4	2	5	1	4	1	1
2	1	2	4	4	3	3	5	3
3	5	1	1	1	5	2	3	2
4	5	4	2	3	1	2	3	5
4	3	4	4	3	3	4	2	2
1	5	1	4	2	4	1	3	1
1	4	2	4	4	4	4	4	3
3	3	3	3	3	4	3	1	3

(It is actually pretty easy if you think about it)

Mean: Median: Mode(s) (if any)   Range:

q.   make a list of 5 numbers where the mean equals the median

r.   make a list of 5 numbers where the mean is more than the median

s.   make a list of 5 numbers where the mean is less than the median

ANSWERS

a. 3, 3, Nil, 4   b.   3,5, 3.5, nil, 5
c. Σx = 79, n = 13, 6.08, 6, 1, 11
d. Σx = 80, n = 14, mean = 5.71, med = 5.5, mode =1 ; range: 11
e. n= 22, Σx = 279, mean = 12.68, med = 6.5; mode = 8; range 144
     n = 21; Σx = 134; mean 6.38, med = 6, mode = 8
f. 2, 2, 2, 0
g. mean:90, med 90, modes: 80 and 100; range =20
h. n= 9; Σx = 56.5; mean 6.28; med 4.5 mode 4.5 ; range 23.6
i. n = 6 , Σx = 106.2; mean 17.7; med 17.4 ; mode 19.2 *and* 15.6;
range 9.8
j. n= 30; Σx = 194; mean 6.47; med 7; mode: 8
l. 5.38; 4; 4; 8   m.   4.43; 4; 4; 6
n. mean: 20; median12
p. 2.878, 3, 3, 4