

I. Find the measures of central tendency of each set of data to the nearest tenth.

Write NA (not applicable) where it's appropriate.

Given Set of Data	Mean	Median	Mode
1.) {32, 41, 35, 35, 46, 42}	38.5	38	35
2.) {13, 62, 77, 24, 38, 19, 88}	45.9	38	NA
3.) {89, 99, 42, 16, 42, 71, 16}	53.6	42	16
4.) {450, 400, 625, 225, 300, 750, 650, 625, 300, 450}	477.5	450	625 300 450
5.) {17, 23, 65, 94, 33, 33, 33, 8, 57, 75, 44, 12, 11, 68, 39}	40.8	33	33
6.) {7.2, 3.1, 3.8, 9.5, 8.3, 8.4, 11.2, 7.2}	7.3	7.35	7.2
7.) {1.5, 2.5, 3.5, 4.5, 4.5, 5.5, 6.5, 7.5}	4.5	4.5	4.5
8.) {321, 322, 323, 324, 325, 326, 327, 328, 329, 330}	325.5	325.5	NA
9.) {43, 56, 78, 81, 47, 42, 34, 22, 78, 97, 38, 46, 54, 67}	55.9	50.5	78
10.) {5, 4, 5, 5, 5, 6, 6, 6, 6, 7, 7, 7, 8, 9}	6.1	6	5 6
11.) {13, 14, 15, 16, 17, 18, 19, 20, 21, 23, 67, 56, 34, 99}	30.9	19.5	NA
12.) {.02, .001, .03, 1, 0.4, .005, 0.60, 0.07, .80, .09}	0.3	.08	NA
13.) {243, 345, 123, 368, 279, 876, 456, 235, 333, 444}	370.2	339	NA
14.) {4.3, 6.4, 2.9, 3.1, 8.7, 2.8, 3.6, 1.9, 7.2}	4.5	3.6	NA
15.) {48, 36, 40, 29, 45, 51, 38, 47, 39, 37}	41	39.5	NA

II. Use the data in the given table to complete each problem and answer each question.

16.) The table below shows the amount of money spent on education per student in 1998 in two regions of the United States.

Pacific States		Southwest Central States	
State	Expenditures per Student (\$)	State	Expenditures per Student (\$)
Alaska	10,650	Texas	6291
California	5345	Arkansas	5222
Washington	6488	Louisiana	5194
Oregon	6719	Oklahoma	4634

a.) Find the mean of each region:

i.) Pacific region mean = 7300.5

ii.) Southwest Central region mean = 5335.3

b.) For which region is the mean more representative of the data. Explain.

SW central region is in Pacific region Alaska is an outlier which had effect on Pacific's mean

306	179	205	194	105	55	122	32	23	16	23
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a.) Find the measures of central tendency:

mean = 114.54 median = 105 mode = 23

b.) Which measure of central tendency best represents the data? Explain.

the mean (but median was fairly close)

18.) The table below shows the profit (in billions of dollars) reported by the U.S. manufacturers for the first quarter of the years from 1997 to 2001.

Year	1997	1998	1999	2000	2001
Profit (in billions)	\$61.4	\$75.6	\$60.9	\$78.5	\$45.3

a.) What are the values of the mean and median for this set of data to the nearest tenth?

mean = 63.34 billion median = 61.4 billion

b.) Which measure of central tendency best represents this set of data? Explain.

median since it's notational better for reporting income or expenses.

19.) Use the stem-leaf plot to find the measures of central tendency:

Stem	Leaf
5	7 7 8 9
6	3 4 (5) 6 7
7	2 3 4 5 6

a.) mean = 65.5

b.) median = 65

c.) mode = 57

20.) The growing season in Tennessee is the period from May to September.

The table to the right shows the normal rainfall for those months.

a.) Find the measures of central tendency: mean = 3.6
median = 3.6
mode = 3.6

b.) Suppose Tennessee received heavy rain in May totaling to 8.2 inches.

If this figure was used for May instead, how would the measures of central tendency be affected? mean = 4.6
median = 3.7
mode = 3.6

only mean changed by increasing by .62

Normal Rainfall for Tennessee (inches)	
May	4.8 (8.2)
June	3.6
July	3.9
August	3.6
September	3.7