

## Measures of Center P-Set

For each of the following, round to 2 decimal places when necessary.

1. The weights (in lbs) of 10 dogs is listed. Find the mean, median, and mode weights.

26 12 100 45 126 84 45 18 44 57

2. The speeds (in mph) of cars passing a certain checkpoint are measured by radar. The results are shown. Find the mean, median, and mode weights.

41.8 41.4 44.4 43.7 45.3 45.3 41.4 40.0 47.8 43.7  
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3. A comparison is made between summer electric bills of a person who has central air and a person who has window units. Find the mean and median of each sample and then compare the results.

	May	June	July	August	September
Central	\$32	\$64	\$80	\$90	\$65
Window	\$15	\$84	\$99	\$120	\$40

4. Is it wise to conclude that window unit air conditioners will cost more than central air? Why or why not?
5. If the average temperature in July is 79 and the average temperature in February is 27, is the average temperature for both months equal to 53? Explain.
6. A company has 80 employees whose salaries are summarized in the table below. Find the mean salary.

Salary	Employees
35,000 – 39,999	17
40,000 – 44,999	12
45,000 – 49,999	12
50,000 – 54,999	15
55,000 – 59,999	24

7. The test scores for 40 students are summarized. Find the mean test score.

Score	Frequency
50 – 59	5
60 – 69	15
70 – 79	6
80 – 89	5
90 – 99	9

8. Michael gets test grades of 75, 79, 82, and 87. He gets an 89 on the final exam. Find Michael's score for the class if tests each count for 15% and the final exam counts for 40% of the overall class grade.
9. Calculate the GPA for the report card below.

Grade	Credit Hours
A	4
D	1
A	3
C	3
B	4

## Key

1.  $\bar{x} = 55.7$ , Med = 45, Mode = 45
2.  $\bar{x} = 43.23$ , Med = 43.7, Mode = 41.8
3. Central mean = 66.2, Central median = 65, Window mean = 71.6, Window median = 84; both measures support the claim a window unit's bills are higher during the summer
4. No it is not. The sample sizes (one each) are too small and thus do not provide a good representation of the populations.
5. No. July has more days than February. You would need to find the weighted mean temperature.
6. \$48,562
7. 74
8. 84.05
9. 3.13