## STUDYDADDY

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The data below represent the cost in dollars that each of 40 cafeteria customers paid for their salad, as observed by statistics students in Fall 2018.

| 2.45 | 2.89 | 3.11 | 3.34 | 3.38 | 3.80 | 3.83 | 3.88 | 3.93 | 4.06 | 4.09 | 4.19 | 4.23 | 4.29 | 4.33 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 4.38 | 4.75 | 4.96 | 5.00 | 5.08 | 5.20 | 5.25 | 5.28 | 5.45 | 5.65 | 5.70 | 5.72 | 5.78 | 5.81 | 5.93 |
| 5.98 | 6.15 | 6.28 | 6.40 | 6.56 | 6.59 | 6.79 | 6.90 | 7.08 | 7.24 |  |  |  |  |  |

a) Compute the summary stats: mean, median, standard deviation, IQR, \& range.
b) Describe the general shape of the distribution of salad costs. How do you know that?
c) Does this data set appear to contain any outliers? Explain.
d) Find the salad cost at the 30th percentile.
e) Compute and interpret the $z$-score of the $\$ 3.80$ salad cost.
f) Identify the salad cost with $z$-score $\approx 1.4$
g) Omit the highest and lowest costs, and recompute the summary stats.

- Why does the median remain unchanged?
- Why do all the measures of variability decrease?
- Why does the mean increase slightly?
h) Please cite any sources you found helpful. Please also name any people who helped you and describe how they helped.


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