## Math 13 Chapter 3 Overview Problems

1) The temperature in Salinas was measured every hour for 24 hours. $39^{0}, 38^{0}, 37^{0}, 37^{0}, 36^{0}, 36^{0}, 37^{0}, 39^{0}, 41^{0}, 43^{0}, 46^{0}, 49^{0}, 51^{0}, 54^{0}, 59^{0}$, $60^{0}, 62^{0}, 61^{0}, 59^{0}, 55^{0}, 51^{0}, 45^{0}, 44^{0}, 43^{0}$
a) Find the mean, median, mode and midrange for this data.
b) Find the range, standard deviation and variance.
c) Find the temperature at the $28^{\text {th }}$ percentile.
d) What percentile is the temperature $37^{\circ}$.
e) Create a boxplot for this data.
f) Find the $z$-score for the temperature $59^{\circ}$.
g) Assuming that temperatures have a normal distribution, what are the cutoffs for temperatures that are considered unusual?
2) Below is a frequency table for the ages of students in a Statistics class.

| Age | Frequency |
| :---: | :---: |
| $17-19$ | 12 |
| $20-22$ | 15 |
| $23-25$ | 8 |
| $26-28$ | 5 |
| $29-32$ | 2 |

Find the mean age for the students, based on this table.

