

Elementary Statistical Methods

Exam One Review

1. For the data set 1, 3, 3, 8, 4, 6, 12, calculate the following. Do each problem without using your calculator's stats commands, and show your work. You may check your work using the stats commands.

- (a) $\sum x$
- (b) $\sum x^2$
- (c) The mean
- (d) The variance
- (e) The standard deviation
- (f) The first quartile (don't forget to sort the data)
- (g) The median
- (h) The third quartile
- (i) The interquartile range
- (j) The mode
- (k) The range

2. Draw a boxplot for the data set in the previous problem.
3. Draw a relative frequency histogram to summarize the following data.

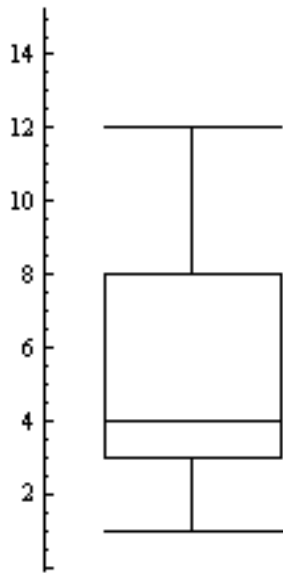
Age	Frequency
20-30	26
30-40	34
40-50	12
50-60	14

4. Be prepared to answer questions about randomized, double blind, controlled experiments, observational studies, confounding variables, etc.

Answers

1. (a) 37
(b) 279
(c) 5.29
(d) 13.90
(e) 3.73
(f) 3
(g) 4
(h) 8
(i) 5
(j) 3
(k) 11

2.



3.

