

STAT 3332 Statistics for Life Sciences

Fall 2007

Quiz 1

Your Name (Please **PRINT**):

Your *Signature*:

1. Consider the following data set of 7 values listed in increasing order:

-120 -40 -40 -40 10 120,000 120,001

The *median* is (encircle best answer)

-40 0 10 $\frac{-40-40+10}{3} = -23.33$ 1,000,000

2. Let IQR denote the *interquartile range* of a data set. Then (choose best answer)

(A) IQR = the difference of the mean and median

(B) IQR = the difference of the maximum and minimum

(C) IQR = the difference of the 1st and 3rd quartiles

(D) Each of (A), (B) and (C) is true

(E) None of (A), (B), and (C) is true

3. *Adding* the constant 13 to each value in a data set (encircle best answer)

(A) adds 0 to the IQR

(B) adds 0 to the sample variance

(C) adds 0 to the standard deviation

(D) does each of (A), (B) and (C)

(E) does none of (A), (B), and (C)

4. *Multiplying* each value in a data set by the constant 13 changes (encircle best answer)

(A) the mean

(B) the IQR

(C) the standard deviation

(D) each of the mean, IQR, and standard deviation

(E) none of the mean, IQR, and standard deviation

5. In a vertical boxplot, the height of the box (from top to bottom) equals (encircle best answer)

$2 \times$ standard deviation $1.5 \times$ IQR median IQR 100%
