## quiz marks out of 24




Where were answers to Quiz?

## Re Q\#1

Jan 10
Note time series (order matters) See Example 1.7 - histogram not useful in this case.

Jan 12
7. What feature of a data set makes a histogram a suitable summary? If the order of observations has no relevant information - most time series certainly should not be summarized this way.

Re Q\#2 Part i) we discussed in class more than once. Part ii) is in Notes Feb 2 and in class.

Re Q\#3

Jan 26

Every sequence of length 5 with 3
Hs and 2 Ts can be specified by specifying the order numbers of the 3 Hs . There are five possibilities $\{1,2,3,4,5\}$ and we need to choose 3 of them (without regard to order - just which subset are we choosing). If we had chosen the subset $\{2,3,5\}$ we would have selected THHTH. But there are C3,5 ways to select this subset, and so there are C3,5 ways to create the length 5 sequence with 3 Hs and 2 Ts. So P(number of Hs in 5 tosses $=3$ )= C3,5 times p3(1-p)2. The general case is the formula
$P(X=x)=C n, x p x(1-p)(n-x) \quad x=0,1,2, \ldots, n$
for the binomial probabilities.
So if $p=.5$ (to make the calculation easy) and $n=5$ then $P(n o$ of $\mathrm{Hs}=3)=$ C5,3(.5)3(1-.5)2 = 10/32. Clearly the formula simplifies the calculation. However, the formula is not too difficult to derive or explain, and so you should know how to do this.

Re Q\#4

Assignment 3 should have prepared you for parts i) and ii). part iii) came out of the discussion on the normal distribution in class.

## Re Q\#5

## Just like Ex 78 of assignment \#2.

## How to study this course?

Assignments - necessary as coercion to read the text.
Reading more important than answers.
Think of text as an authority with definitions
Lectures - contain explanations that you need to know
Spend time with the notes - marginal notes.
Use the Stat Workshop
Use my Office Hours
Use e-mail to me
Quiz and Midterm - review, understand why mistakes were made, and what you did right

