

# BIOS 600 · Quiz 2.1: Summary Methods

6 September 2011

1. **Honor Pledge:** I have neither given nor received unauthorized aid on this assignment.  
(Sign and print your name.)

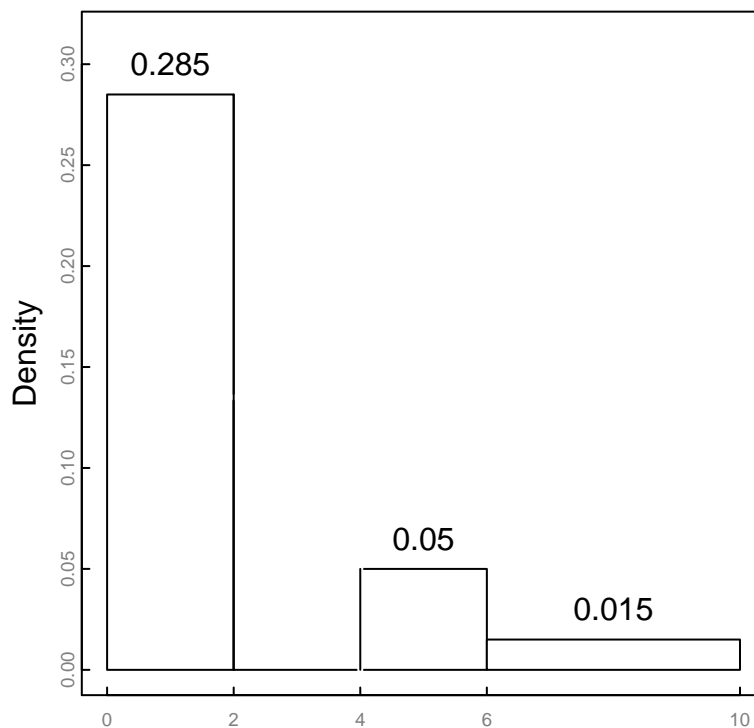
2. Recall from lecture that in a histogram, the area of a block (or bin) corresponds to a proportion. Specifically,

$$\text{the proportion of observations in a block} = \frac{\text{the area of a block}}{\text{total area in the histogram}}.$$

It is standard convention to draw a histogram so that the total area in the histogram is 1. This means that

$$\text{the proportion of observations in a block} = \text{the area of a block}.$$

Use this information to answer the following question: The following figure is a histogram with the second bin (between 2 and 4) missing. Calculate what the height of the second bin must be and add it to the figure. Also, write the height above the bin.



(continues on back)

3. Find the min, median, mean, max, 25<sup>th</sup> percentile, and sample variance of the following numbers.

3, 6, 0, 3, 6, 6, 4

4. Table 1 summarizes the Digoxin clinical trial data from page 22 of our text book. This table is missing an important piece of information. What is it missing? (Hint: The table is not missing another summary statistic like the median or standard deviation.)

**Table 1: Variable Summary of Digoxin Clinical Trial Data**

Variables	%	%NA	Min	Mean	Max
sysbp		0	100.00	131.40	170.00
creat		0	0.90	1.35	2.68
bmi		0	15.20	26.75	43.27
TRT		0			
Placebo	55				
Digoxin	45				
Race		0			
White	88				
Not White	12				
Sex		0			
Male	75				
Female	25				
Total (N=40)		0			