Math 304-Test 1 Study Guide Chapter 10 Statistics & 11 Probability

I. Organizing and Picturing Information

Identify the kinds of information that a given type of graph is good for depicting A) A box and whisker plot depicts what information?

Chapter Test p.480 #3

II. Analyzing Data

B) Make up a set of data with a mean of 5 and a standard deviation that is not zero

C) On a test whose scores form a normal distribution, with a mean = 71 and standard deviation = 7.8 what percent of the tests fall below a score of 77?

Section 10.2 p. 478 #5 & p. 480 #1 in Problems for Writing/Discussion

III. Survey Techniques & Misleading Graphs

Identify the population, sample, bias in the gathering of statistics

Section 10.3 p. 479 #5

IV. Probability vs. Odds

D) If the probability of a horse will win the race 3/17 what are the odds the horse will win?

Section 11.1 p.541. # 1 and Section 11.3 p. 542 #4

V. Probability of multistage experiments

E) Set up a probability tree diagram for the following a spinner divided into the following angles $\text{Red} = 240^\circ$ and $\text{Blue} = 120^\circ$ and spun twice.

F) Determine the probability of flipping a coin 7 times and getting 4 heads?

➢ Sec 11.2 p.542 #3

VI. Expected Value

G) A sorority sold 500 \$1 raffle tickets for a \$398 television set. What is the expected value?

Sec 11.3 p. 542 #6

VII. Conditional Probability H) Sect. 11.3 #6 on p. 542

VII. Additional Counting Techniques

Permutation is when order matters, such as:

I) How codes can be created with 4 letters and 2 digits, without replacement?

Combination is when order does not matter such as:

J) How many teams can be selected from 10 students if there are 6 students needed to form a team?

Section 11.4 p. 543 #2a, 4, 6