

Chapter 7: Exercises 67, 68, 69, 71

Chapter 8: Exercises 95, 96, 97

67.

- A. This is false because it can still be any variable.
- B. Yes this is true to an extent but the variables could also be random.
- C. This is true because the random deviation could go anyway.

68. (36,16)(16,10)

Could not figure out rest of the problem

69.

- A. The yearly income of third a world country
- B. 1000 of the average samples
- C. 2000, 8000/1000
- D. Wide differences could have average outcomes.
- E. It will have higher probabilities closer to the mean.

71. B

Chapter 8:

95.

- A. i. 71  
ii. 3  
iii. 48
- B. X is the height of the Swiss male. Mean height from a sample of 48 Swiss males.
- C. Normal. We know the standard deviation for the population, and the sample is greater than 30.
- D. i. CI: 970.151, 71.49)  
ii.  
iii. EBM=0.849

96. In words, define the random variables  $X$  and  $\bar{X}$ .

They are the magazines and the population.

Which distribution should you use for this problem? Explain your choice.  
Random distribution because it would be a random variable.

Construct a 95% confidence interval for the population mean length of engineering conferences.  
(239.84, 248.16)

84, 248

EBM = 4.16 97

A. i. mean= 23.6

ii. standard deviation=7

iii.  $n=100$

B.  $X$  is the time needed to complete an individual tax form. The mean time to complete tax forms from a sample of 100 customers.

C.  $N(23.6, 7)$