

Due Date: Wednesday April 27, 2011

Text Book, Chapter 3 Exercises:

Assigned Problems (To be turned in for Credit)

3.6: "Starting at a fixed time, each car entering an intersection..." (page 90)

Answer the following parts:

- What are the possible X values? (*same as in book*)
- Enumerate all possible outcomes in $S_1 = X^{-1}(1)$, $S_2 = X^{-1}(2)$, and $S_3 = X^{-1}(3)$. Remember, $S_i = X^{-1}(x_i) = \{s \in S: X(s) = x_i\}$. (Do **not** answer "List five outcomes and their associated X values.")

3.10: "The number of pumps in use..." (page 90)

3.12: "Airlines sometimes overbook flights..." (page 98)

3.14: "A contractor is required by a county planning department..." (page 98)

3.16: "Some parts of California are particularly earthquake-prone..." (page 98)

3.24: "An insurance company offers its policy holders..." (page 99)

3.32: "An appliance dealer sells three different models of upright..." (page 107)

3.35: "A small market orders copies of certain magazine..." (page 107)

Remember that you must *show all work* when answering the questions. If the answer to the question is a calculation, be sure to write down the formula you used or describe how you made the calculation.

Suggested Problems that do not need to turn in:

3.7: For each random variable described here, describe..." (page 90)

3.13: "A mail-order computer business has six telephone lines..." (page 98)

3.18: "Two fair six-sided dice are tossed independently..." (page 99)

Try to write the answers in algebraic form as well: $p_M(m)$ and $F_M(m)$: for generic m .

3.23: "A consumer organization that evaluates new automobiles..." (page 99)

3.25: "In Example 3.12, let Y = the number..." (page 100)

3.34: "Suppose that the number of plants of particular type..." (page 107)

3.39: "A chemical supply company currently has in stock..." (page 107)

Notes:

- **Please submit your Assignment at the beginning of the class. As discussed in the Syllabus, late submissions will not be accepted.**
- Remember that you must *show all work* when answering the questions. If the answer to the question is a calculation, be sure to write down the formula you used or describe how you made the calculation. .
- Answers to Questions regarding probabilities **should be** given in the decimal format.