

Statistics – OR 155, Section 1, Homework # 2

Due: Thursday, January 29, 2007

4.21b rework, using the “not” rule

4.106 (0.317)

C6: A building company bids on two large projects. The president believes the chance of winning the 1st is 0.6, the chance of winning the 2nd is 0.5, and the chance of winning both is 0.3. What is the chance of winning at least one of the jobs? (0.8)

C7: Choose an acre of land in Canada at random. The probability is 0.35 that it is forest, and 0.03 that it is pasture.

- What is the probability that the acre chosen is not forested? (0.65)
- What is the probability that it is either forest or pasture? (0.38)
- What is the probability that a randomly chosen acre in Canada is neither forest nor pasture? (0.62)

4.115 (see description before 4.113)

4.117

C8: A company makes 40% of its cars at factory A, and the rest at factory B. Factory A produces 10% lemons, and Factory B produces 5% lemons. A car is chosen at random. What is the probability that:

- It came from Factory A? (0.4)
- It is a lemon, if it came from Fact. A? (0.1)
- It is a lemon, from Factory A? (0.04) (think carefully about contrast with (b))
- It is a lemon? (0.07)
- It came from Factory A, if it is a lemon? (4/7)

4.109

4.108 (ignore Venn Diagram) (a. 0.082, b. 0.179, c. 0.056, d. 0.683)