

NAME: _____

Quiz 6 [10 pts]. October 21, 2008

Math 111 Sec FC01

1. There are four factories in the United States which make Brandex chewing gum. They have recently had a problem with their gum wrappers being put on inside-out. The distribution of the factories, labeled A, B, C, D, along with the percentage of gum wrappers put on inside-out, is represented in the chart below.

Factory	Percentage of manufacturing	Percentage inside-out
A	40	1
B	20	10
C	10	25
F	30	10

- (a) Suppose a pack of gum is selected at random. What is the probability that it came from factory A?
- (b) Suppose a pack of gum is selected at random. What is the probability that its wrapper is inside-out?
- (c) Suppose a pack of gum with an inside-out wrapper is selected. Using Bayes's theorem, determine the probability that it came from factory A.