MA 110-11 §3.5 – 3.7	**Quiz #5**	*score*	**Name:** _____ **14 June 2002**

1. We play a game a game in which you roll a 6-sided die while I roll an 8-sided die (with numbers 1 through 8). If your die shows a larger number than mine, I pay you \$3. If my die shows a larger number than yours, you pay me \$2. If the numbers are equal, no money is exchanged. Find the expected value of this game from your point of view. Would this game be profitable for you? *(7 points)*

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2. Responses from a survey show the following numbers of people who respond "yes" or "no" to a particular issue. *(6 points)*

	yes	*no*	*no opinion*
Men	201	180	15
Women	128	214	23

   (a) Find the probability that a random person responds "yes."

   (b) Find the probability that a person responds "yes" given that the person is a woman.

   (c) Find the probability that a person is a woman given that the person reponded "yes."

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3. A manufacturer obtains 25% of its parts from supplier A, 25% from suppier B, and 50% from supplier C. If 2% of the parts from supplier A are defective, 3% from B are defective, and 1% from C, what is the probability that a random part is defective? *(7 points)*