

MA 110-06
§3.7 - 4.1

Quiz #6

score

Name: _____

12 November 2002

1. A coin is tossed four times successively. Let E be the event that the result of the first toss is heads and let F be the event that there are more heads than tails in the four tosses. By calculating $p(F)$ and $p(F|E)$, determine if the events E and F are independent. (6 points)

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2. If a clock manufacturer uses one chip to make its clocks. It obtains 40% of this chip from factory A and 60% from factory B. Assume 1% of the chips from A are defective and 2% from B are defective. Find the probability that if a clock has a defective chip, that chip came from factory A. (7 points)

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3. The scores on a quiz in a Finite Math class are: 10, 12, 13, 15, 15, 16, 16, 16, 17, 19, 20. The letter grade categories are $0 \leq x < 10$, $10 \leq x < 14$, $14 \leq x < 16$, $16 \leq x < 18$, and $18 \leq x \leq 20$ for the letter grades F, D, C, B, and A, respectively. Plot a relative frequency density histogram for this data set. Use the interval from 0 to 20 with the specified intervals on the horizontal axis (rather than the categories A-F) to do this. (7 points)