Math 477 REAL QUIZ #2

NAME: (print!) _____

E-MAIL ADDRESS: (print!) _____

1. (5 points) In a certain class, the only bad habits are smoking and drinking.

• the probability that someone only drinks is 0.3

• the probability that someone only smokes is 0.1

• the probability that someone smokes and drinks is 0.05

Find

(i) The conditional probability that someone doesn't smoke if it is known that he doesn't drink;

(ii) The conditional probability that someone smokes if it is known that he doesn't drink;

(iii) The conditional probability that someone smokes if it is known that he drinks.

2. (5 points) It is known that the probability of being smart is twice the probability of being handsome, and the probability of being handsome is four times the probability of being nice. All three traits are independent of the other ones. If the probability being smart and handsome and nice is %3.2, what are the probabilities of being smart?, of being handsome?, of being nice?