Math 114 Name: _____

Practice Quiz – Conditional Probability; Independent Events

1. Given $P(E) = .70$, $P(F) = .80$ and $P(E \cap F) = .60$ find:

   a. $P(E \cup F) =$ _____

   b. $P(E|F) =$ _____

   c. $P(F|E) =$ _____

   d. $P(E'|F) =$ _____

2. At a small college, eight sections of English are taught at night and twenty sections of English are taught during the day. Sixty-five percent of the day sections are taught by full-time faculty. Thirty-eight percent of the evening sections are taught by full-time faculty.

   a. What is the probability that a student is enrolled in a night English class and is taught by a full-time faculty member?

   b. What is the probability a student is taught by a part-time teacher?

3. Using the table, answer the following question.

	Under 50 (F)	50 or older (F')	Totals
iPhone, (I)	410	205	
No iPhone (I')	90	135	
Totals			840

Are events *I* and *F* independent? Why or why not?