MATH 422 Week 9 Quiz Name_____
Date_____

Directions: Answer each question to the best of your ability. **Show your reasoning** and/or process used to answer the question(s) where it is appropriate. A calculator will be helpful for this quiz. There are 5 questions.

Some useful formulas: $Pr(A) = n(A)/ n(S)$

Complementary events rule: $Pr(A) = 1 - Pr(A^c)$ -or- $Pr(A^c) = 1 - Pr(A)$

Two independent events: $Pr(A \text{ and } B) = Pr(A) * Pr(B)$

$Pr(A \text{ or } B) = Pr(A) + Pr(B) - Pr(A \text{ and } B)$

Give your answers to probability questions as a fraction or decimal rounded to 3 decimal places

1. (3 pts) A group of people were asked if they had run a red light in the last year. 419 responded "yes", and 297 responded "no".

Find the probability that if a person is chosen at random, they have run a red light in the last year.

2. (3 pts) A professor teaches two sections of the same course. Here is a summary of students, and their grades on the most recent exam by section. The sample space consists of 67 students.

	A	B	C	Total
Morning class:	11	9	18	38
Afternoon class:	20	3	6	29
Total	31	12	24	67

If a student is selected at random, what is the probability that the student is in the morning class?

3. (3 pts) Using the same table as in problem #2, if a student is selected at random, what is the probability that the student did NOT get a "C" on the most recent exam?

4. (3 pts)

A cube with sides numbered 1 through 6 is rolled. Find the probability of the given event.

(a) The number showing is a 3

(b) The number showing is an odd number

(c) The number showing is greater than 3

5. (3 pts)

A coin is flipped and a number from 1 to 4 is selected at random. What is the probability that the result of the coin flip is "Heads" ***AND*** the number chosen is odd?

Your answer is :