Assignment 5

Show all your work

Name: _____

Number: _____

Signature: _____

Score: ___/13

Problem 1: Answer each question to two decimal place accuracy when appropriate. Write out steps for each.

a. If there is a 1 in 200 chance that Janette will pick the numbers correctly in President's Barbecue lottery, what is the probability she will NOT pick the numbers correctly?

b. The residents of Smithston and the surrounding areas are divided over the proposed construction of a dog park in town, as shown in the table. A reporter randomly selects a person to interview from a group of residents. If the person selected lives in the surrounding areas, what is the probability that the person supports the dog park?

|	Support dog park	Oppose dog park
Live in town	7252	6316
Live in surrounding areas	518	461

c. When you flip three coins, what is the probability of getting at least one heads?

d. When you draw a single card from a deck of 52 cards, what is the probability of getting a red queen?

e. Assume that A and B are events. If $P(A \cap B) = 0.20$, $P(A) = 0.40$, and $P(B) = 0.65$, find $P(A \cup B)$.
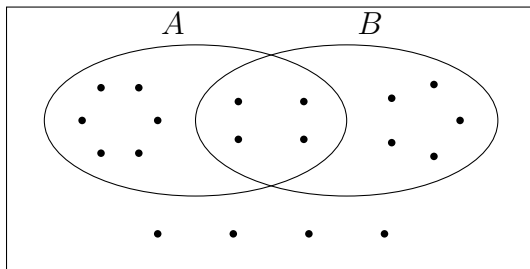
Score: ___/5

Problem 2: Dad constructed a spinner with five equal sectors the morning after Halloween for Hamlet and Samlet. Assume that the pointer never lies on a border line, answer the following questions.
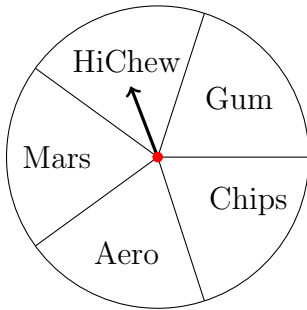
    a. Find the probability for the event of getting no Chips after two spins.

    b. Find the probability for the event of getting at least one HiChew after three spins.

Score: /4

Problem 3: Dad drew a big rectangle representing a sample space containing two events, A and B. Assume that the outcomes (as dots) were all equally likely, answer the following questions.

    a. $P(B)$

    b. $P(A \cap B)$

    c. $P(B \mid A)$

    d. Are A and B disjoint?

Score: /4