Brock Francom
A02052161

7. Complete the following assignment prior to Meeting #17:

A. Study our notes from Meeting #16.

B. Comprehend Jim's sample response to Quiz 16.

C. Comprehend Entry #037A–D of our *Glossary*.

D*. Note that while serving as the TV-color-commentator during a Utah Jazz basketball game, Matt Harping suggested that because a player who had just missed one foul shot would likely make the next because the probability of his making a foul shot is 70%.

Assuming that $p(A) = 0.70$ where A is the event that the player shoots a foul shot and makes it, assess the veracity of Matt's declaration. In your assessment, make reference to the independence or dependence of two events (e.g., the event that a player makes the first of two foul shots and the event that the player makes the second of two foul shots).

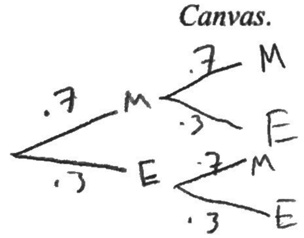
Express your assessment in two paragraphs and upload the resulting pdf document on the appropriate Canvas assignment link.

E. From the Video Page of *Canvas*, view with comprehension "Probability of making two shots in six attempts ... ."

F*. From the Video Page of *Canvas*, view with comprehension "The Monty Hall Problem Explained ." Then write a paragraph that addresses the following question: How, if at all, does the *Monty Hall problem* relate to *Bayes' theorem* and *Bayesian* statistics?

G. Comprehend Jim's sample responses to the homework prompts that are posted on *Canvas*.

D)



As seen in the tree diagram, the probability of making the second shot is .7, which is the same as the probability of making the first. This means the events of making a foul shot are independant.

$P(MM) = .7(.7) = .49.$

As a basketball player, I do not believe that the 2 events are independant. The crowd, the pressure, knowing the outcome of the first event, etc, all combine to make the second shot less independant. However, I believe for the sake of this question, they are independant events.

F) When a door is removed, you have new evidence. Then by computing the statistic again, you come closer to the "truth". This is like Bayes' Theorem. The more new evidence you obtain and then compute Bayes' Therom, the more likely you are to arrive at "truth".