

MA 113 B2

QUIZ 2

Summer 2009

Student Name (Last, First) _____

BU ID # _____

Show all your work for full credit.

1. (2 points) True or false?

- For any two events A and B , $P(A \cap B) = P(A) + P(B)$
- For any two mutually exclusive events A and B , $P(A \cup B) = P(A) + P(B)$.
- Two events A and B are independent iff $P(A \cap B) = P(A) + P(B)$.
- For any event E , $P(E') = 1 - P(E)$.

2. (3 points) The following table displays the data collected by Blizzard Entertainment about World Of Warcraft players on Azjol-Nerub server.

	Male	Female	Bot
≤ 6 hours per week	200	120	0
> 6 hours per week	40	20	50

Pick a random WoW player.

- Find $P(\text{The player is a female})$.
- Find $P(\text{The player is a male who plays more than 6 hours per week})$.
- Given that the chosen player is online less than 6 hours per week, find $P(\text{The player is a bot})$.