Name **MAT 330-Introduction to Statistics**
Date **Assignment #5**

1. Use the following table to answer questions (a)-(e):

The following table gives the two-way classification of 500 students based on sex and whether or not they suffer from math anxiety.

	Suffer From Math Anxiety	
Sex	**Yes**	**No**
Male	167	73
Female	168	92

(a) If you randomly select one student from these 500 students, the probability that this selected student is a female is: (round your answer to three decimal places, so 0.0857 would be 0.086)

(b) If you randomly select one student from these 500 students, the probability that this selected student suffers from math anxiety is: (round your answer to three decimal places, so 0.0857 would be 0.086)

(c) If you randomly select one student from these 500 students, the probability that this selected student suffers from math anxiety, given that he is a male is: (round your answer to three decimal places, so 0.0857 would be 0.086)

(d) If you randomly select one student from these 500 students, the probability that this selected student is a female, given that she does not suffer from math anxiety is: (round your answer to three decimal places, so 0.0857 would be 0.086)

(e) Which of the following pairs of events are mutually exclusive? (Note: Make only one choice from the following options)

1) Female and male
2) Female and no
3) Female and yes
4) Male and no
5) Male and yes
6) No and yes

2. The athletic department of a school has 12 full-time coaches, and 4 of them are female. The director selects two coaches at random from this group. The probability (to three decimal places) that neither of them is a female is:

3. The probability that an adult possesses a credit card is 0.71. A researcher selects two adults at random. The probability (rounded to three decimal places) that the first adult possesses a credit card and the second adult does not possess a credit card is:

4. The probability that a student at a university is a male is 0.52, that a student is a business major is 0.17, and that a student is a male and a business major is 0.08. The probability that a randomly selected student from this university is a male or a business major is: