EXTRA CREDIT
Due May 3rd

You can have a team of two or three people. Name all the people on your team. You should work together in coming up with questions and you should submit separate assignments.

A student from another semester has given me a matrix. You can get some information about the matrix by asking questions to find the mystery matrix. Then you construct a problem using your questions which will have this matrix as the answer and solve the problem.

a. You can ask me 6 to 8 questions. You must ask your questions in writing either before or after class or by email. You should wait to find the answer of one question before you ask the next so that you can utilize the information from your previous questions in choosing the next question. Questions that amount to asking what is the matrix or what is its inverse will not be answered. If your question is one that cannot be answered, then it will not count towards the total number of questions.

This part of the problem carries 6 points.

b. Write down why you asked the questions you did and what did you learn from them and how you chose the next question every time. State which, if any of your questions were wasted in the sense you got no useful and new information from them. This part of the problem carries 6 points.

c. Finally, you would have created an interesting problem from these questions. It will be something like, A is a matrix. We know that "A is or A has ......." (You will have 6 - 8 such pieces of information about A) What is A? Write down the interesting problem that you constructed, as if it is a problem in a text book. This part of the problem carries 10 points.

d. Solve the problem you pose in c. Explain your solution and method completely.
This part of the problem is worth 8 points.

e. If you feel that you have wasted a question and some how need to ask one or two more pieces of information, you can say so and if I agree, I will let you ask more questions.