8 – HW#4 The Titanic

Name: _____ Per: _____

On April 15, 1912, the Titanic struck an iceberg and rapidly sank with only 710 of her 2,204 passengers and crew surviving. Data on survival of passengers are summarized in the table below:

	Survived	Did not survive	Total
First class passengers	201	123	324
Second class passengers	118	166	284
Third class passengers	181	528	709
Total passengers	500	817	1317

1. If one of the passengers is randomly selected, calculate the following probabilities:

   a. This passenger was in first class?

   b. This passenger survived?

   c. This passenger was in first class and survived?

   d. If the passenger is randomly selected from first class, what is the probability that they survived?

   e. If the passenger is randomly selected from those who survived, what is the probability that they were in first class?

   f. If the passenger is randomly selected from those who survived, what is the probability that they were in third class?

   g. Why do you think the probability from part d is larger than part c?