Name:_____ Period:_____

Math Magic!

Probability With and Without Replacement

Directions: Follow the instructions marked in italics. Use the classical definition of probability discussed in class to answer the questions in the space provided. Show all necessary work to receive full credit.

Draw a card from the hat.

1.) What is the suit of the card you have drawn? _____

Put the card back in the hat. Look at all of the cards in the hat, and complete the following table:

Total # of cards	# of Hearts	# of Spades	# of Clubs	# of Diamonds

2.) If you were to draw another card, what is the probability it would be the same card you drew the first time?

Answer:_____

3.) If you were to draw another card, what is the probability it would be of the same suit as the card you drew the first time?

Answer:_____

Draw two cards from the hat.

4.) What is the suit of the first card? _____

What is the suit of the second card? _____

Do not put the cards back in the hat.

5.) If you were to draw another card, what is the probability that it would be of the same suit as the second card?

Answer:_____

6.) If you were to draw another card, what is the probability that it would not be of the same suit as either the first or second cards?

Answer:_____

Put the cards back in the hat and mix all the cards in the hat thoroughly.