7. Use the table to find the probabilities that a person’s total charges during the period are the following:

What is the probability that a person total charges are $1000 or more?\_\_\_\_\_\_\_\_\_\_\_ (type an integer or decimal group or 2 decimal places as needed)

Chart shows probability of a person accumulating specific amounts of credit card charges over a 12 month period.

Charges Probability

Under $100 .35

100-499 .18

500-999 .11

1000-1999 .13

2000-2999 .06

3000-4999 .05

5000-9999 .11

10,000 or more .01

**What is the probability that a person’s total charges are less than 1,000.**

20. A survey of 100 people about their music experience gave the following information:

34 brought blues music

22 were seniors who brought blues music

31 were seniors

Find the following probability.

The probability that a person is a senior who brought non blues music is \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**The probability that a person buys blues music or is a senior is\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**21. Suppose a single die is rolled. Find the probability that it is an odd number, given that it is a 1.**

**The probability is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

192 colleges with endowment levels above $300M

Value Positive Increase Decrease bet 0and 5% Decrease more than 5% Total

300-499 17 25 15 57

500-999 23 26 10 59

1-1.999B 24 16 6 46

2B or more 20 5 5 30

Total 84 72 36 192

 **Among the 192 colleges and universities, find the probability that the endowment had more than a 5% reduction or had a value of $300 to $499M**

23. If two cards are drawn without replacement from an ordinary deck, find the probability of a jack of diamonds and a 6 if any suit is being drawn.

**The probability of a jack of diamonds and a 6 of any suit being drawn is \_\_\_\_\_\_\_\_\_\_**

**25. Determine whether the events E and F are independent or dependent.**

(a) E: A Person attaining a position as a professor

 F: The same person attaining a position as a professor.

a. E and F are independent becsue attaining a PhD as a professor has no effect on probability of a person attaining a PhD.

b. E and F are dependent because attaining a position as a professor has no effect on the probability of a person attaining a PhD.

c. E and F are independent because attaining a PhD has no effect on the probability of a person attaining a position as a professor.

D. E and F are dependent because attaining a PhD can affect the probability of a person attaining a position as a professor.

**E: A randomly selected person planting tulip bulbs in October**

**F: Another randomly selected person planting bulbs in april**

**A. E cannot affect F because person planting tulip bulbs in Oct could never occur, so the events are neither dependent nor independent.**

**B. E can affect the probability of F because the people were randomly selected, so the events are dependent**

**C. E can affect the probability of F, even if the 2 people are randomly selected, so the events are dependent**

**D. E cannot affect F and vice versa, because the people were randomly selected so the events are independent**

29. The motor vehicle department has found that the probability a person passing the test for driver’s license is 0.74. The probability an individual who fails on the first test will pass on second try is 0.8. Find the probability that an individual fails both first and second test.

**P (fails both first and second test)=\_\_\_\_\_\_\_(type integer or decimal. Round to nearest hundredth.)**

**32**. Probability that the first record of a singing group will be a hit is 0.24. If their first record is a hit, so are all their subsequent records. If their first record is not a hit, the probability of their second and all subsequent ones being hits is 0.12. If the first two records are not hits, the probability that the third is a hit is 0.06. Find probability that a group has exactly two hits in their first three records.

**P (exactly two hits in first three records )=\_\_\_\_\_\_\_\_\_\_\_\_\_\_(simplify your answers. Type an integer or an decimal. Round to 6 places.**