**Math 125 Practice Final**

1. What type of variable would a person’s height be if measured in inches? Name one type of graph you could use to represent that variable.
2. Given this set of numbers find the mean, mode and the 5-Number Summary:

{2, 3, 4, 5, 5, 5, 6, 7, 7, 8, 10, 22}

1. Given the following sets of numbers answer the questions below:

A = {1, 2, 4, 5, 7, 9, 10} B = {3, 5, 7, 11} U = {1, 2, 3, 4, 5, ……,11, 12}

1. $5\in B$ (True or False)
2. Write the set of $A∩B$.
3. Write the set of $A∪B$.
4. Write the set of $B^{C}$.
5. What is the probability of rolling a 3 on a 6-sided die and then getting a red marble from a bag that contains 4 red, 3 green and 6 blue marbles?
6. At a school there are 100 students in the Senior Class and:

10 Students play Baseball, Basketball and Football

17 Students play Baseball and Football

21 Students play Baseball and Basketball

22 Students play Basketball and Football

31 Students play Baseball

36 Students play Football

40 Students play Basketball

* Draw a Venn diagram to represent this scenario, make sure to include students that do not play any sports.
* What is the probability that you randomly select one student and they do not play any of these sports?
* What is the probability of selecting one student at random that plays just Football?
* What is the probability that if you select two students they both play *exactly* two sports?
1. If there are twelve (12) people in a room and we need to select four (4) to go on a field trip how many different combinations of people can we send?
2. Using the matrices given below answer the following questions:

Given A =  B =  C =  D =  E = 

Calculate. If not possible, put undefined:

a) A + B b) 3B – A c) AC

d) BE e) Find the inverse of Matrix A

1. Solve the system of equations by writing it in matrix form and then solve using matrix row operations: (Show all steps) $\left\{\begin{array}{c}2x-3y=12\\3x+4y=1\end{array}\right.$