**Extra Credit 54 - 58**

**Extra #54**

**Simplify – no calculator**

**1**. $\frac{P\left(6, 5\right)P(4,4)}{P\left(5,1\right)P(0,2)}$ **2.** $\frac{P\left(7,4\right)P(5,3)}{P(6,5)}$

**3.** How many 7 digit phone numbers can be formed if the first digit cannot be 0 or 1 and if no

 digit can be repeated?

**4.** A golf club manufacturer makes irons with 7 different shaft lengths, 3 different grips,

 5 different lies, and 2 different club head materials. How many different combinations are

 offered?

**How many different ways can the letters of each word be arranged?**

**5.** ANNUALLY **6.** MEMBERS

**Extra #55**

**1.** From a group of 10 men and 12 women, how many committees of 5 men and 6 women can

 be formed?

**2.** From a standard deck of 52 cards, how many ways can 5 cards be drawn?

**An urn contains 8 white, 6 blue, and 9 red balls. How many ways can 6 balls be selected to meet each condition?**

**3.** All balls are red

**4.** Three are blue, 2 are white, and 1 is red

**5.** Two are blue, and 4 are red

**6.** Exactly 4 balls are white

**Extra #56**

**A bag contains 5 yellow, 1 green, and 4 red chips. Two chips are selected at random**

**1.** P(both red)  **2.** P(both green)

**3.** **A bank contains 3 pennies, 8 nickels, 4 dimes and 10 quarters. Three coins are**

 **selected at random.**

P(2 pennies and a dime)

**4. A red, a green, and a yellow die are tossed**. P(none of the dice shows a 4)

**From a standard deck of 52 cards, 2 cards are selected.**

**5.** P(2 blacks/no replacement)  **6.** P(2 blacks/with replacement)

**Extra #57**

**A bag of marbles contains 5 blue and 7 white marbles. You randomly select 4 marbles.**

**1.** P(all white or all blue)  **2.** P(exactly 3 white) **3.** P(at least 3 white)

**4. The letters of the alphabet are placed in a bag and 1 is selected.**

 P(a vowel or the letters in “QUIZ”)

**5. A card is selected from a standard deck of 52 cards.**

P(king, queen or red)

**6. A bag contains 15 yellow, 12 green, and 18 red dyed eggs. Select one egg.**

P(green or red)

**Extra # 58**

**1. Find the range, median and interquartile range**

 {18, 24, 16, 24, 22, 24,22, 22, 24, 13, 17,1 8, 16, 20, 16, 7, 22, 5, 4}

**2. Find the mean and standard deviation to 2 decimals**

{364, 305, 217, 331, 311, 352, 319, 272, 238, 311, 226, 220, 215, 160, 123, 4, 24, 99}

**From the stem and leaf graph:**  **Stem Leaf**

 130 1 1 3 9

**3.** The number 13.25 is at what % 131 7 7

 132 1 2 3 5 6 7 7

**4.** The number 13.54 is at what % 133 0 0 1 3

 134 1 3 4 4 5 6 8 9

 135 0 1 1 1 4 5 8 9

 136 1 3 5

 130 | 3 = 13.03