MATH 1342 Name _____
Elementary Statistical Methods
Lab 2 Ch.5 – Probability
Critical Thinking; Communication Skills; Empirical/Quantitative Skills

---

The following is the number of each color of M&M found in a sample bag of 280 M&M's.

Red	39
Orange	58
Yellow	55
Green	38
Blue	27
Brown	63

Suppose you reach into the bag and randomly select one M&M. Calculate the following probabilities. Round your answers to 4 decimals.

1. P (Red) =

2. P (Yellow) =

3. P (Blue) =

Suppose you reach into the sample bag and randomly select THREE M&M's.
Calculate the following probabilities (with and without replacement).
Show your calculations and round your final answers to 4 decimals.

4. The probability that the first M&M is Red, the second M&M is Yellow, and the third M&M is Blue.
(with replacement)

5. The probability that the first M&M is Red, the second M&M is Yellow, and the third M&M is Blue.
(without replacement)

6. The probability that all three M&M's are Blue.
(with replacement)

7. The probability that all three M&M's are Blue.
(without replacement)

8. Would it be unusual for all three M&M's to be blue if the sampling is done without replacement? Justify your answer using a complete sentence and proper grammar. Write (or type) in the space provided.