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| **Chapter 12: *Let Me Count the Ways*** |
| Pages 307 – 328 |
| **NEW OBJECTIVES:** |
| * Identify and give examples of random phenomena. |
| * Understand that The Law of Averages is **Non**existent. |
| * Define equally likely events. |
| * Know the distinction between independent events and dependent events. |
| * Recognize the importance of The Law of Large Numbers that applies to independent events. |
| * Compute relative frequency. |
| * Understand the relationship between relative frequency and theoretical probability. |
| * Know that P(Event) represents the statement, *probability of an event*. |
| * Recognize the P(Event) will always be between 0 and 1 inclusive or, stated in a different way, between 0% and 100%. |
| * Apply the Fundamental Counting Principle when the key word is “or.” Remember that “or” implies addition. |
| * Apply the Fundamental Counting Principle when the key word is “and.” Remember that “and” implies multiplication. |
| * Evaluate factorials and understand the role of factorials in counting. |
| * Define *permutation*. |
| * Find the number of permutations of *n* things taken *r* at a time. |
| * Define combination. |
| * Find the number of combinations of *n* things taken *r* at a time. |
| * Know how to use your TI83/84 graphing calculator to compute factorials, permutations, and combinations. |
| * Use combinations to find a probability. |

**MONDAY, 3.31.25**

**Discuss the previously assigned work:**

* ***Chapter 12, Review A*** (Handout to be received during class)
* Page 327, #48, 49.

**Class Work/Homework:** C. 12 Reading Guide

**A Look at** Chapter 12 Powerpoint Slides

**Homework:** Study for a Chapter 12 Quiz to be taken on Wednesday. You may use one page of notes.

**WEDNESDAY, 4.2.25**

**Chapter 12 Quiz.** You may use one page of notes.

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| **Chapter 13: What Are the Chances?** |
| Pages 329 – 340 |
| **NEW OBJECTIVES: Know and use the following:** |
| * The 5 Rules of Formal Probability |
| * The symbol for the complement of an event |
| * The Complement Rule |
| * The definition of 2 events that are independent of each other. |
| * The Multiplication Rule for Independent Events |
| * The definition of disjoint events |
| * The Addition Rule for Disjoint Events |

**Class Work/Homework:**

* **Read and take notes on C. 13,** *What Are the Chances?* (Pages 329 – 340).

**FRIDAY, 4.4.25**

**Class Work:** Pages 340 and 341 (1-11, odds).

**Homework:** Fill in the Chapter 13 Reading Guide. **Due on Monday, 4.7.25, as a Test**

grade.

**SATURDAY, 4.5.25\_\_\_E-LEARNING DAY**

* Complete the Chapter 13 Reading Guide. Due on Monday, 4.7.25, as a Test

grade.

* **Study the *For Example*** (*Lotteries and Lightning)* on **page 317.**

**Page 327, #46, *Lotto Winners*.** **Show** how you will calculate the probabilities in parts a and b. **Then, use your TI-84 to compute the probabilities**, accurate to 4 decimal places.