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| **Chapter 11 (Pages 285 – 300)****Vocabulary:** random, generating random numbers, simulation, simulation component, trial, response variable, statistical significance, unbiased, random number tables, pseudorandom numbers |
|  |
|  **CHAPTER 11 OBJECTIVES:**  |
| * Recognize random outcomes in a real-world situation.
 |
| * Know when to use a simulation to usefully model random behavior in the real world.
 |
| * Generate random numbers.
 |
| * Choose a random sample.
 |
| * Randomly assign subjects to experimental treatments.
 |
| * Simulate real-world outcomes.
 |
| * Describe a randomization process or a simulation explicitly so that others can understand your plan and repeat the process.
 |
| * Discuss results of a simulation study and draw conclusions about the question being investigated
 |

**MONDAY, 3.3.25**

**Discuss the previously assigned problems: Page** 305 (#40, 42, 43).

**Class Work/Homework:** *Simulation Practice* (Handout).

**WEDNESDAY, 3.5.25**

**Discuss the previously assigned work:** *Simulation Practice.*

**Homework:**

* **Read and take notes on**pages 307 – 311, Chapter 12, *Let Me Count the Ways.*
* Study the “For Example” and “Just Checking” items within these pages. Be ready to discuss.
* Page 324 (#9 – 14)

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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.
 |

**FRIDAY, 3.7.25**

**Discuss the previously assigned work:**

* **Read and take notes on**pages 307 – 311, Chapter 12, *Let Me Count the Ways.*
* Study the “For Example” and “Just Checking” items within these pages. Be ready to discuss.
* Page 324 (#9 – 14)

**Class Work:**

* Read and take notes on pages 312 – 317.
* **Discuss** the “For Example”, “Just Checking” and “Do the Math” items on these pages.

**Homework:**

Page 323, #1 – 3

Page 324, #5, 18