**Unit 5**

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**Unit 5 - Probability: What are the Chances?**

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| --- | --- | --- | --- |
| Date | Topic | Keeper Notes/ reading assignment | Written Assignment |
| Tuesday  2/4 | **5.1 Randomness, Probability & Simulation**   * Interpret probability as a long-run relative frequency in context. * Use simulation to model chance behavior.   Video What is Probability? | pp. 281-288  WB 88-89 | page 293  1-11 odd |
| Wed  2/5 | ***5.1 Randomness, Probability & Simulation*** | *pp. 289-293*  *Practice/lab* | page 295  15,17,19,23,25 |
| Thus  2/6 | **5.2 Probability Rules**   * Describe a probability model for a chance process. * Use basic probability rules, including the complement rule and the addition rule for mutually exclusive events. * Use the general addition rule to calculate ***P(A***U***B*** | **pp.299-302**  **WB 91-92** | page 308  27,31,32,43,45,47 |
| Friday  2/7 | **5.2 Probability Rules** | **pp.303-308**  **practice/lab** | page 308  29,33-36 all49,51,53,55 |
| Monday  2/10 | **5.3 Conditional Probability & Independence**   * When appropriate, use a tree diagram to describe chance behavior. * Use the general multiplication rule to solve probability questions.P | pp.312-320 | page 328  67,69,77,79 |
| Tuesday  2/11 | **5.3 Conditional Probability & Independence** | pp.321-328 | page 328  83,85,87,91-99 odd |
| Wed  2/12 | Review | Practice tests | Guided notes due\_\_\_  Hw due |
| Thursday  2/13 | FRQ/ Practice TEst |  |  |
| Friday  2/14 | TEST |  |  |
|  |  |  |  |

**STANDARDS:**

**Exploring data: Describing patterns and departures from patterns**

A.  Exploring categorical data

1. Frequency tables and bar charts
2. Marginal and joint frequencies for two-way tables
3. Conditional relative frequencies for two way tables
4. Comparing distributions using bar charts

Anticipating patterns: Exploring random phenomena using probabilities and simulations

A.  Probability

1. Interpreting probability, including long-run relative frequency interpretations
2. “Law of Large Numbers” concept
3. Addition rule, multiplication rule, conditional probability, and independence
4. Discrete random variables and their probability distributions, including binomial and geometric
5. Simulation of random behavior and probability distributions
6. Mean (expected value) and standard deviation of a random variable and linear transformation of a random variable

**IMPORTANT DATES**

9/18 - Quiz Keepers 5.1-5.2

10/1- AP Statistics Practice Test 5

**QUICK NOTES**

[Chapter 5 - Probability What are the Chances Quick Notes](https://cobbk12.blackboard.com/bbcswebdav/pid-1327264-dt-content-rid-5609102_2/xid-5609102_2) [Click for more options](https://cobbk12.blackboard.com/webapps/blackboard/content/listContentEditable.jsp?content_id=_782588_1&course_id=_17444_1#contextMenu)

**LESSONS**

**5.1 Randomness, Probability & Simulation**

* Interpret probability as a long-run relative frequency in context.
* Use simulation to model chance behavior.

[Keeper 5.1 - Randomness, Probabilty & Simulation](http://www.hopkins.k12.ky.us/webpages/vbrowning/files/tps4e_ch5_5.1.ppt)

HW:  1, 3, 7, 9, 11, 15, 17, 19, 23, 25

**5.2 Probability Rules**

* Describe a probability model for a chance process.
* Use basic probability rules, including the complement rule and the addition rule for mutually exclusive events.
* Use a Venn Diagram to model a chance process involving two events.
* Use the general addition rule to calculate ***P(A***U***B)***

[**Keeper 5.2 - Probability Rules**](http://www.hopkins.k12.ky.us/webpages/vbrowning/files/tps4e_ch5_5.2.ppt)

***HW: 27, 29, 31, 32, 33-36, 43, 45, 47, 49, 51, 53, 55***

**5.3 Conditional Probability & Independence**

* When appropriate, use a tree diagram to describe chance behavior.
* Use the general multiplication rule to solve probability questions.
* Determine whether two events are independent.
* Find the probability that an event occurs using a two-way table.
* When appropriate, use the multiplication rule for independent events to compute probabilities.
* Compute conditional probabilities.

[Keeper 5.3 - Conditional Probability & Independence](http://www.hopkins.k12.ky.us/webpages/vbrowning/files/tps4e_ch5_5.3.ppt)

HW: 57-60, 63, 65, 67, 69, 73, 77, 79, 83, 85, 87, 91, 93, 95, 97, 99