

Monday, October 15, 2012

No TISK Problems or Mental Math this week

While Miss Wiltjer passes back your graded work from last quarter, you should *fill out the “What I think it means” line* on today’s notes handout.

- Do NOT use your book
- Do NOT talk about it with a partner
- Just write what you think of when you see the word

Homework: Review definitions

§9-1 Probability

- You will have a CLOSED NOTES quiz this week on these definitions.
- Probability
 - What do you think it means?
 - Book's Definition:
 - Probability is a number between 0 and 1 that tells you how likely the event is to happen. The notation $P(\text{event})$ is read, "the probability that the event occurs"
 - Example: The weather forecast shows there is a 40% chance of rain.
 - 40% is the **probability** that it will rain; $40\% = 0.4$ and that is between 0 and 1.

§9-1 Probability

- Event
 - What do you think it is?
 - Book's Definition: An event is any set of one or more outcomes.
 - Example: Rolling an even number on a 6-sided die is an event.

§9-1 Probability

- Outcome
 - What do you think it means?
 - Book's Definition: Each result of an experiment.
 - Example: When I roll a six-sided die, two of the outcomes are 4 and 6.

§9-1 Probability

- Experiment
 - What do you think it means?
 - Book's Definition: An activity in which results are observed.
 - Example: Rolling a die is an experiment.

How is an experiment *different*
from an event?

§9-1 Probability

- Trial
 - What do you think it means?
 - Book's Definition: Each observation in an experiment is a trial.
 - Example: I rolled a die and it came up 5. Rolling the 5 is the trial.

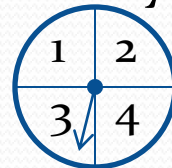
§9-1 Probability

- Sample Space
 - What do you think it means?
 - Book's Definition: The set of all possible outcomes of an experiment.
 - Example: When rolling a 6-sided die, the sample space is: 1, 2, 3, 4, 5 and 6.

How is sample space *different* from an outcome?

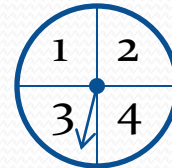
§9-1 Probability

- Impossible
 - What do you think it means?
 - Book's Definition: An event whose probability is 0. An event that will never occur.
 - Example:
 - $P(\text{today is Saturday}) = 0$
 - The probability that today is Saturday is 0 because today is Monday.
 - $P(\text{spin a 6}) = 0$
 - The probability of spinning a 6 is 0 because there is no six.



§9-1 Probability

- Certain
 - What do you think it means?
 - Book's Definition: An event with a probability of 1. An event that ***must*** occur.
 - Example:
 - $P(\text{spinning a number less than } 10) = 1$
 - This event must occur because the only outcomes are numbers less than ten.



§9-1 Probability

- Final Probability Notes
 - Probability is based on ***RANDOMNESS***.
 - This is based on an idea that each event is measurable in its likeliness.
 - What type of events do you think are random?

Homework

- Review these definitions
 - Remember, you will have a CLOSED NOTES quiz this week in which you will be expected to correctly define and identify the use of these terms.