Standard #: MAFS.912.S-MD.1.4

This document was generated on CPALMS - www.cpalms.org

Develop a probability distribution for a random variable defined for a sample space in which probabilities are assigned empirically; find the expected value. *For example, find a current data distribution on the number of TV sets per household in the United States, and calculate the expected number of sets per household. How many TV sets would you expect to find in 100 randomly selected households?* ★

Subject Area: Mathematics

Grade: 912

Domain-Subdomain: Statistics & Probability: Using Probability to Make Decisions

Cluster: Level 2: Basic Application of Skills & Concepts

Cluster: Calculate expected values and use them to solve problems -

Date Adopted or Revised: 02/14

Content Complexity Rating: Level 2: Basic Application of Skills & Concepts - More Information

Date of Last Rating: 02/14

Status: State Board Approved

Related Courses

Course Number	Course Title
1210300:	Probability & Statistics with Applications Honors (Specifically in versions: 2014 - 2015, 2015 and beyond (current))
1298310:	Advanced Topics in Mathematics (formerly 129830A) (Specifically in versions: 2014 - 2015, 2015 and beyond (current))

Related Resources

Perspectives Video: Expert

Name	Description
How Math Models Help Insurance Companies After a Hurricane Hits:	Hurricanes can hit at any time! How do insurance companies use math and weather data to help to restore the community?
Probabilistic Weather Modeling:	Meteorologist from Risk Management discusses the use of probability in predicting hurricane tracks.

Video/Audio/Animation

Name	Description
MIT BLOSSOMS - Flu Math Games:	This video lesson shows students that math can play a role in understanding how an infectious disease spreads and how it can be controlled. During this lesson, students will see and use both deterministic and probabilistic models and will learn by doing through role-playing exercises. There are no formal prerequisites, as students in any high school or even middle school math class could enjoy this learning video. But more advanced classes can go into the optional applied probability modeling that accompanies the module in a downloadable pdf file. The primary exercises between video segments of this lesson are class-intensive simulation games in which members of the class 'infect' each other under alternative math modeling assumptions about disease progression. Also there is an occasional class discussion and local discussion with nearby classmates.

Lesson Plan

Name	Description
Modeling Conditional Probabilities 2:	This lesson unit is intended to help you assess how well students understand conditional probability, and, in particular, to help you identify and assist students who have the following difficulties representing events as a subset of a sample space using tables and tree diagrams and understanding when conditional probabilities are equal for particular and general situations.
Probability:	This lesson is designed to develop students' understanding of probability in real life situations. Students will also be introduced to running experiments, experimental probability, and theoretical probability. This lesson provides links to discussions and activities related to probability as well as suggested ways to integrate them into the lesson. Finally, the lesson provides links to follow-up lessons designed for use in succession with the current one.