



Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
1987 Volume V: Human Nature, Biology, and Social Structure: A Critical Look at WhatScience Can Tell Us
About Society

An Introduction to Mathematical Probability

Guide for Curriculum Unit 87.05.02

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In this unit of curriculum we will try to improve the students' understanding of the elementary ideas included in probability theory. The unit will clearly define important words and ideas. Formulas for solving problems will be presented. Permutations, combinations, and compound probability will be discussed. Applications of the theory to practical problems will be demonstrated in the unit. Following the explanation of each topic a set of practice exercises will be several basic objects for this unit of study. Upon completion of the unit, the student will be able to: (1) understand and appreciate the use of probability in everyday life; (2) solve problems involving permutations and combinations; (3) define basic terms used in mathematical probability; (4) compute the probability that a certain event will happen.

The material developed here may be taught as a complete unit in Algebra 3 classes, or parts of it may be extracted and taught at the following levels of instruction: (1) in seventh or eight grade mathematics classes; (2) in high school applied mathematics classes; (3) in first year algebra or second year algebra classes; and (4) in adult basic education classes.

(Recommended for General Mathematics classes, grades 7-9; Algebra I classes, grade 9; Algebra II classes, grade 10; Algebra 3 and Trigonometry classes, grades 11-12)

Key Words

Mathematics Permutations Combinations Probability

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