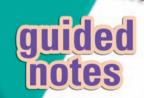
NAME

Module 20 Solving Problems Using Probability, Statistics, and Discrete Math

Lesson 3 Solving Advanced Probability Problems

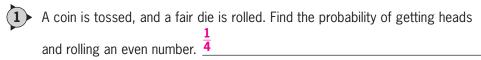


Lesson Objectives

- Find the probability of independent events.
- Find the probability of dependent events.

Two events are <u>independent</u> events if the occurrence of one event does not affect the probability of the other.

For independent events A and B, $P(A \text{ and } B) = P(A) \cdot P(B)$

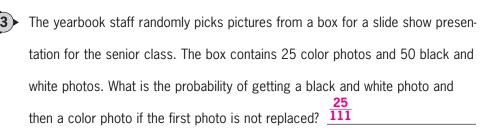


Two letters from the word "apple" are selected at random with replacement.

What is the probability of selecting two "p's"? $\frac{4}{25}$

Dependent events are events in which the occurrence of one event does affect the probability of the other.

For dependent events A and B, $P(A \text{ then B}) = P(A) \cdot P(B \text{ after A})$



Two letters from the word "apple" are selected at random without replacement. What is the probability of selecting two "p's"? $\frac{1}{10}$