

Pre-Calc
Lesson 11.4
Binomial Probability



Examples

A study published in a consumer magazine indicated that when a husband and a wife shop for a car, the husband exerts the primary influence in the decision 70% of the time. Five couples who will be purchasing a car are randomly selected. Determine the probability of each of the following

- A) In exactly 2 of the couples, the husband will exert the primary influence on the decision.
- B) In all 5 couples, the husband will exert the primary influence on the decision
- C) The wife will exert the primary influence on the decision 4 or more times.

A baseball player has a batting average of 0.280. Find the probability that the player will hit her 4 times in the next 10 at bats.

Ten percent of the keyboards a computer company manufactures are defective. Determine the probability that one or more of the next three keyboards to come off the assembly line will be defective.

A multiple-choice quiz has 10 questions. Each question has four possible answers. Sam is certain that he knows the correct answer for Questions 3, 5, and 8. If he guesses the other questions, determine the probability that he gets at least 50% on the quiz.

A survey indicates that 41% of women in the US consider reading as their favorite leisure time activity. You randomly select four US women and ask them if reading is their favorite leisure-time activity. What is the probability that at least 2 of them respond yes?