

Counting Cards

Background

Bringing Down the House is about a group of student from MIT who used a mathematical system for playing blackjack. A professor formed a team of his students and taught them how to count cards when playing blackjack.

Using probability equations we covered, answer the questions below. Some of your answers may be estimates, others will require finite responses.

“The team is divided into three types of players. You’ve got your Spotters, your Gorillas, and your Big Players.” (P. 44) “The Spotters keep count by counting backwards” (P. 45) “Our Spotters sit at tables, playing the minimum bet as they count. Nobody suspects them because they’re just like everybody else. Losing a bit, maybe getting lucky- but never varying their bet. When the count goes good, the Spotter signals a call-in. Then the Gorilla or the Big Player sidles over to the table.” (P.45) “Gorilla play is the next step after Spotting. A Gorilla is just a big bettor. It’s more acting than anything else. He gets called into a hot deck, stumbles over like a drunk rich kid, and starts throwing down big money. He doesn’t think for himself- he lets the Spotter tell him when the deck goes bad.” (P. 45) “A Big Player does it all. It’s acting and counting and betting.” (P.46)

The Spotters signal Gorillas and Big Players over by using body language and key words.

- “If the deck is warm, fold your arms in front of your chest.
- If the deck is hot, fold your arms behind your back. Even hotter, put your hands in your pockets.
- I need to talk, touch your eye.
- Get over here, lowered your head into folded arms.
- What’s the count?, scratch your ear.
- “I’m too tired to play anymore”, rub your neck.
- I’m getting heat from the pit boss”, move your hands to your forehead.
- “Something’s wrong get out now”, put your hand in your hair. (p.49-50)

The key words for telling the count were:

Tree: the signal for a count of +1, because a tree looked like a one.

Switch: +2, because a switch was binary, on or off.

Stool: +3, because it had three legs.

Car: +4, four wheels.

Glove: +5, fingers.

J: +6, bullets.

Craps: +7, lucky seven.

Pool: +8, eight ball.

Cat: +9, nine lives.

Bowling: +10, strike.

Football: +11, because "11" look like goalposts.

Eggs: +12, a dozen.

Witch: +13, witchy number.

Ring: +14, fourteen-carat gold.

Paycheck: +15, because you got paid on the fifteenth.

Sweet: +16, sweet sixteen.

Magazine: +17, the name of a teen magazine.

Voting booth: +18, the age you could vote." (p.50)

- 1.) Using the book as a model, create your own keyword system and rationale for numbers +1 through +18

"If the dealer has a high point card then the odds were higher for the dealer." (P. 47).

- 2.) Assume you are a big player and you sit down at the table with a spotter, what count would you want the spotter to say in order for you to get 21

- 3.) Answer the following scenarios:

- a. The dealer gets a jack and king. What is the probably of you getting 21 higher or lower?

- b. The dealer gets a five, nine, and king. What is the probability of you getting 21 higher or lower?
 - c. What value of cards do you want the dealer to get in order for you to get 21?
 - i. High cards
 - ii. Low cards
 - iii. Neutral cards
- 4.) Complete the following activity
- a. Play blackjack 10 times. How many times did you win? How many times did you get 21 exactly?
 - b. Play blackjack 25 times. How many times did you win? How many times did you get 21 exactly?
 - c. What was your probability of winning?
 - d. What was your probability of getting 21?