

PROBABILITY PROJECT

DATA ANALYSIS

CRAPS RULES OF THE GAME

When it is your turn to throw the craps dice, you must determine whether to bet the pass line or the don't pass line. Most shooters, as well as most of the other craps players at the table, will bet the pass line, as it is the basic wager of craps.

The pass line wager is an even money bet that wins if you either roll a total of 7 or 11 on the come-out roll, or if you throw a 4, 5, 6, 8, 9 or 10 on the come-out roll and repeat that number before you roll a 7.

The pass line bet loses if the come-out roll is a 2, 3, or 12 (known as "craps") or when a 7 is rolled before the established point number is repeated.

CRAPS PROBABILITIES

1. $P(7) = 6 / 36$

2. $P(11) = 2/36$

3. $P(\text{doubles } \{ 1,1 \text{ or } 2,2 \text{ or } 3,3 \text{ or } 4,4, \text{ or } 5,5 \text{ or } 6,6 \})$
 $= 1/36 + 1/36 + 1/36 + 1/36 + 1/36 + 1/36 = 6/36$

4. $P(\text{win on first roll } \{ 7 \text{ or } 11 \})$
 $= 6/36 + 2/36 = 8/36$

5. $P(\text{lose on first roll } \{ 2, 3, \text{ or } 12 \})$
 $= 1/36 + 2/36 + 1/36 = 4/36$

WAYS TO LIMIT YOUR LOSING

One of the most effective ways of managing your bankroll is by setting a limit for incurring losses and sticking to them. Most gamblers have the mistake of setting hundred dollars for their bankroll. This bankroll can disappear in a flash which forces the gambler to increase their bankroll. There is a huge temptation to keep on gambling especially if you are on a winning streak. As much as possible, determine how much you are willing to lose before gambling.

Another important element of a craps strategy is an understanding of bets charts on the craps board. For others, this might be considered as the most daunting task but the truth of the matter is in craps there are some low edge bets. You might want to set your sights on pass line bets and come bets that come with free odds. Likewise, you might to wager on a six or eight.

In addition, you might want to learn how to use hedge bets when making difficult risks. While it can reduce the unstable nature of craps, it can however minimize your winning chances. In short, hedge bets can minimize losses that could decrease your bankroll. However, if you are on a hot streak, you could get reduced winnings than you would normally have if you would not hedge bets.