

## **Contents**

Listed below are topics within the HELP FILE of Keno+Plus. To select a topic click on it with the mouse. These topics are also accessible while playing Keno+Plus.

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## Introduction

KENO is a game of chance based on the random selection of numbered balls. It is similar to lotteries played throughout the United States.

A player must first mark 1 to 15 numbers, or **Spots**, on a Keno Ticket, then write a **Price** on the ticket. The player then gives the ticket and the appropriate amount of money to a Keno writer or runner. The amount of money will depend on the ticket price and the number of games played. The Keno writer or runner then gives a computer-generated copy of the ticket to the player before the next game begins. Games usually occur every 5 minutes.

Each game begins with the random selection of 20 numbered balls from a total of 80. The results are displayed on Keno boards throughout the casino. The object of the game is to match as many of the spots marked on the Keno Ticket with the 20 randomly selected balls. A **Catch** occurs when a spot matches a selected ball.

The winnings or **Pay** will depend on how many marked spots match the 20 numbered balls and on the amount wagered. If a Keno Ticket is valid for only a few games (usually 20 or less), then winnings *must be collected immediately after each game and before the start of the next game*. Most states, however, allow up to one year to collect winnings on multi-game Keno tickets (21 to 1,000 games).

## How to Play

To make a selection, point and click with the mouse.

To play one game at a time:

1. On the KENO TICKET:
  - (a) Pick 1 to 15 Spots, and
  - (b) Select a Price.
2. Click on SELECT BALLS.
3. Note the Number of Catches and the resulting Pay.
4. Select ODDS AND PAYOFFS from the MAIN MENU to see the expected outcome.
5. To replay, click on SELECT BALLS again.

**Note:** You may use the same ticket again without having to re-select the same spots. To remove a previous pick, simply click on the spot again. To remove all picks, click on CLEAR TICKET. Use the scroll bar to adjust the BALL SELECTION RATE.

To play several games at once, select SPECIAL then SEVERAL GAMES from the MAIN MENU.

Select HELP then DEMONSTRATION from the MAIN MENU for a demonstration of the game.

### **See Also**

[Odds and Payoffs](#)

[Special](#)

[Help](#)

## Main Menu

### File

This command provides the player several options, including a DEMONSTRATION of the game, the best STRATEGY, contacts for SUPPORT, and the option to QUIT the program and return to Windows.

### Odds and Payoffs

This command provides two options. The first option produces a table showing the odds for all possible outcomes based on the total number of Spots marked on the CURRENT TICKET, with the associated payoffs based on the current wager. The second option, SELECT SPOTS, shows the odds and payoffs for all possible outcomes based on a given number of spots (1 to 15) as inputted by the player. The second option assumes a \$1.00 wager.

### Special

This command provides four options. The first option allows the player to RANDOMLY SELECT SPOTS on the Keno Ticket. The second option allows SEVERAL GAMES to occur (up to 1000) using the same Keno Ticket, or a ticket with spots randomly selected during each game. The third option, MATCH SPOTS, provides the player a chance to determine the number of games that might occur before matching a given number of spots once during one or more Rounds of play. The player may use a Keno Ticket with pre-selected spots, or a ticket with spots randomly selected during each round. The fourth option is a RANDOM BALL SELECTOR that picks from one to six balls. This option is of interest to players of games similar to Keno, for example a lottery.

### Help

This command provides access to the Keno+Plus HELP FILE and information ABOUT the program.

### See Also

[File](#)

[Odds and Payoffs](#)

[Special](#)

[Help](#)

## **Game Commands**

### **Select Balls**

This command begins the random selection of 20 numbered balls. The Keno Ticket must have 1 to 15 Spots marked on it and the Price selected before ball selection may begin.

### **Ball Selection Rate**

This command (scroll bar) sets the time delay between ball selections. The default value is 3 seconds. Hence, to select 20 balls takes about 1 minute, an average rate in most casinos. The SLOW rate results in a 6 second delay between ball selections, or about 2 minutes to select 20 balls. The FAST rate causes no delay between ball selections, meaning the ball selection rate will depend on the speed of the computer.

### **Spot Selections**

These commands consist of one of 80 numbered boxes (8 rows of 10) that form the Keno Ticket. Clicking on a spot results in placement of an **X** over the number, indicating a selection on the ticket. To cancel the selection, click on the **X** and the number for that spot will reappear. The current total of marked spots appears in the upper-left corner of the ticket. Though exceptions exist, the number of marked spots typically allowed by most casinos ranges from 1 to 15.

### **Ticket Price**

This command represents the amount wagered, or the Ticket Price, for a particular game. The typical wager is \$1.00.

### **Clear Ticket**

This command clears all previously marked spots on the Keno Ticket at once. The player can also clear all marked spots by clicking on each spot one at a time. The Clear Ticket command, however, provides the player an easier way to remove all spots at once.

### **Status Bar**

Displayed at the bottom of the screen is a Status Bar. It explains the purpose of each MAIN MENU selection and of each GAME COMMAND. It also informs the player of the results of certain actions.

*See Also*

[Main Menu](#)

## Game Results

### Number of Catches

This number indicates how many of the marked Spots on the Keno Ticket matched the 20 numbered balls randomly selected during the game. This number will range from 0 (no matches) to the total number of marked spots (all matches). When a selected ball matches a marked spot, a Catch results and the number is highlighted in **red**.

### Pay

This number is highlighted in **green** and indicates how much, if any, the resulting Keno Ticket paid after random selection of the 20 numbered balls. The pay depends on (1) the Number of Catches, (2) the ticket Price, and (3) the payoff schedule of the casino. Though variations exist, pay schedules usually do not differ substantially between casinos. Keno+Plus bases payoffs from information provided to the public by the Mirage Casino of Las Vegas, Nevada (1993). *Use of this payoff schedule or of this program does not, in any way, constitute an endorsement of this product by the management of the Mirage Casino.* An option is available to change the payoff schedule, if desired.

### See Also

[How to Play](#)

[Odds and Payoffs](#)

## File

### Demonstration

This command outlines the steps to play a Keno game. It also highlights the results and other program features following completion of a game.

### Strategy

The best winning odds are **1 in 4** and occur when selecting *only one spot* on the Keno Ticket.

SELECT SPOTS under ODDS AND PAYOFFS provides more information on expected payoffs, while SEVERAL GAMES and MATCH SPOTS under SPECIAL provide an opportunity to test spot selection strategies.

### Support

Questions or comments regarding Keno+Plus are welcomed. Please correspond either by mail or by the online addresses provided below.

Mail: Bailey Enterprises  
P.O. Box 542500-122  
Houston, Texas 77254-2500

CompuServe: J. R. Bailey  
71542, 3016

America Online: JamesB2875

### Quit

This command ends the program and returns the user to the previous Windows environment.

### See Also

[Odds and Payoffs](#)

[Special](#)

## Odds and Payoffs

### Current Ticket

This command produces a table showing the odds of catching a given number of Spots from the total number of marked spots on the current ticket, with the associated payoffs based on the current ticket Price. This option is enabled only after selecting one or more spots on the Keno Ticket. Once one or more spots are selected on the Keno Ticket, the player may view the odds and the associated payoffs at any time.

Results are shown as a percentage to two decimal places. For example, the odds of catching 5 of 10 spots is 5.14%, or about 5 times during 100 games (or 51.4 times during 1000 games). The payoffs are based on the price of the Keno Ticket.

If ball selection has occurred, with the NUMBER OF CATCHES and PAY displayed on screen, then selecting CURRENT TICKET afterwards will show the outcome for that particular game highlighted in **red**. All of the other possible outcomes are shown in **black**.

### Select Spots

This command produces a table showing the odds and payoffs for all possible outcomes based on a given number of spots (1 to 15) as inputted by the player. The results are shown as a percentage to two decimal places. The payoffs always assume a \$1.00 ticket price.

Clicking the button next to a particular outcome will result in the display of the APPROXIMATE ODDS as a ratio. For example, the odds of catching 8 of 12 spots are 1 in 981 (or once during 981 games).

SELECT SPOTS also shows at the bottom of the table the odds for ZERO PAYOFF and the CASINO RETURN in percent. Zero payoff odds will vary depending on the total number of spots and on the payoff schedule of the casino. Casino return is the expected return for every \$1.00 bet. For example, a casino return of 25.0% means that a casino would expect a return of \$0.25 (one quarter) for every \$1.00 wagered. Casino returns from Keno games typically range between 25 and 30 percent.

A player may change the payoff schedule by selecting CHANGE PAYOFF. A table appears, allowing input of any dollar amount. This number should represent the payoff for that particular combination of matched spots *based on a one dollar wager* (no commas nor \$ sign is required when entering this number). Once entered, select CHANGE PAYOFF again and the original table in ODDS AND PAYOFFS is updated accordingly. Any changes in ZERO PAYOFF or CASINO RETURN will also be updated. CHANGE PAYOFF provides an easy way to see the effects of changes to the payoff schedule on the CASINO RETURN. To change a payoff back to the original value, type **default** in place of the dollar amount.

*See Also*

[Game Results](#)



## Special

### Randomly Select Spots

This command provides the option to randomly select Spots on the Keno Ticket. It is enabled only if the Keno Ticket has no previously marked spots. (A convenient way to remove all previously marked spots is to use the CLEAR TICKET command.) A window opens, prompting the player to select the number of spots (1 to 15) to randomly pick. If no number is selected, the program assumes a default value of 1. After selecting a number and clicking OK, the window closes and the random selection of spots occurs on the Keno Ticket.

### Several Games

This command provides the option to play several games at once (up to 1,000) followed by a display of the results.

First, the number of games to play is inputted followed by the amount to wager. A selection is then made between using spots currently marked on the Keno Ticket (if applicable) or having spots randomly selected during each game.

Select START to begin processing. Eventually a table will appear showing the combinations of catches, the expected outcomes, the actual outcomes, and the total Pay. Shown at the bottom of the table is the total amount of money wagered and the money **won** or **loss**.

Select BALL SUMMARY and another table appears showing the total number of times each ball was selected. This table also provides the option to view the **LEAST FREQUENT** and the **MOST FREQUENT** numbers appearing while playing the inputted number of games. This information is shown in tabular form by default, but may also be viewed as a **GRAPH**. The GRAPH option also provides a chance to view lines indicating the standard deviation and the maximum, minimum, and mean values. Select OK to return to the previous table.

Select COMBINATIONS and a window appears, providing a chance to view those combinations of numbers that paid money while playing the inputted number of games. [Note that the winning number combinations will consist of numbers (in ascending order) from spots marked on the current ticket if it was selected for play during the inputted number of games. The winning number combinations from spots randomly selected during each game, however, will occur at random (in random order).] Select OK to return to the previous table.

Select QUIT to return to the MAIN MENU.

### Match Spots

This command provides the option to determine the expected number of games to play before catching a given number of spots either currently marked on the Keno Ticket or selected at random.

After deciding whether to use spots marked on the Keno Ticket or to use randomly selected spots, the number of spots to match is selected next. This number is preset so it will not exceed the total number of spots marked on the Keno Ticket (if applicable) or the total number of randomly selected spots. Finally, the number of Rounds to play is selected. Playing several rounds is useful, since this approach allows calculation of an *average* value for the expected number of games to play before catching a certain number of spots once.

Select START to begin processing. The time to play each round is displayed at the bottom, followed by the results. For example, to catch 5 of 8 spots during 10 rounds of play may take on average 45.9 games.

Select WINNING COMBINATIONS to display all of the number combinations that paid during processing.

When applicable, the number of winning combinations will equal the number of rounds played. Select OK to return to the previous window.

Select QUIT to return to the MAIN MENU.

**Note:** The odds of catching a given number of spots increases dramatically as that number approaches the total number of spots. For example, the odds of catching 8 of 10 spots is 1 in 7,384 while catching 9 of 10 spots is 1 in 163,381. Thus, processing may take several minutes (or even hours) of computing time, particularly during several rounds of play. Thus, a message appears at certain time intervals during processing to provide the option to cancel. The default time interval is 3 minutes, but becomes adjustable if the odds of catching a given number of spots exceed 1 in 1,000. [Using SELECT SPOTS under ODDS AND PAYOFFS, note the odds of catching 15 of 15 spots ([answer](#)).]

### **Random Ball Selector**

This command provides the option to randomly select from one to six balls at once. This feature is useful to players who enjoy playing games similar to Keno, like a lottery. Select REPEAT to randomly pick a new set of balls again.

Select QUIT to return to the MAIN MENU.

**See Also**

[Game Commands](#)

## Help

This option provides access to the Keno HELP FILE commands and information ABOUT the program.

### Help Commands

These commands access the Keno+Plus HELP FILE for Windows. This Help File is compiled in a format common to the help files of other commercially available Windows programs. Help is organized in terms of HOW TO perform certain operations. Help also provides a description of OTHER FEATURES of the program. These topics are also accessible while playing Keno+Plus.

### About Keno+Plus

Keno+Plus was written to provide the player a way to better assess the odds of winning and the effects, if any, of a particular strategy for spot selection. Unlike other commercially available programs or books, Keno+Plus provides real simulations of the game as played in a casino environment. Furthermore, the player can readily determine the odds and payoffs of all possible outcomes for a given ticket. Detailed analyses, including ball selection summaries, graphs, statistics, winning combinations, and the effects of random spot selection versus pre-selected spots, are provided in the program. Using Keno+Plus over a period of time should improve a player's understandings of the game.

Of course, Keno+Plus is also fun (and much less expensive) to play. The author hopes that all users enjoy the program. The author also appreciates all registrations of this program by its users.

*See Also*

[Contents](#)

**Spot**

A number marked on a Keno Ticket.

**Catch**

A spot that matches a selected ball.

**Price**

The amount wagered, usually \$1.00.

**Pay**

The amount won, which depends on the number of catches and the payoff schedule of the casino.

**Mirage**

A big casino with white tigers and an active volcano.



**Round**

The start of a series of consecutive games that concludes once a given number of spots are caught.

**Answer**

1 in 428,010,179,098

**Fun**

Something always in demand.

**Registration**

Come on, guys, **pay up!**

## Warranty

This disk is warranted to be readable. **BAILEY ENTERPRISES** hereby disclaims all other express or implied warranties for this software, including the warranties of merchantability and fitness for a particular purpose. In no event will **BAILEY ENTERPRISES** be liable for any damages, including any lost profits, lost savings, or inability to use this software. If this disk proves to be unreadable, please return it for an immediate replacement.

