

Mastermind Game Rules

OBJECT OF THE GAME

The object of MASTERMIND (r) is to guess a secret code consisting of a series of 4 colored pegs. Each guess results in feedback narrowing down the possibilities of the code. The winner is the player who solves his opponent's secret code with fewer guesses.

CONTENTS

De-Coding board: featuring built in storage area for pegs, built in scoring table, and hinged shield to conceal secret code.

Code Pegs: Approximately 72 large round-headed pegs (about 12 each of 6 colors).

Key Pegs: Approximately 30 small flat-headed pegs (about 15 each of black and white).

TO BEGIN

Separate the Code Pegs from the Key Pegs. Decide which player is to be the Codemaker and which to be the Codebreaker. Position the board between the 2 players so that the 4 shielded holes for the secret code face the Codemaker.

GAME NO. 1 (1,296 permutations)

The play of the game goes as follows:

- 1) One player, known as the Codemaker, secretly places the 4 Code Pegs in the 4 holes, which are then covered by flipping over the plastic shield to conceal them from the opponent's sight. The Codemaker can use any combination of the 6 colors he chooses. He can also use 2 or more Code Pegs of the same color if he wishes.
- 2) The other player, known as the Codebreaker, sits opposite the Codemaker and places Code Pegs in the 1st row of the Code Peg holes (closest to him). The Codebreaker is attempting to duplicate the exact colors and positions of the secret code.
- 3) The Codemaker responds by placing 0, 1, 2, 3, and 4 Key Pegs in the Key Peg holes on the 1st row as follows:

(b) A black Key Peg to indicate a Code Peg of the right color and in the right position (without indication of which Code Peg it corresponds to).

(b) A white Key Peg to indicate a Code Peg of the right color but in the wrong position.

(b) No Key Peg to indicate a wrong color that does not appear in the secret code.

There is nothing about the placement of the Key Pegs to indicate which particular Code Pegs are meant. It is part of the challenge of the game for the Codebreaker to figure out which Code Pegs correspond to particular Key Pegs. The response when 2 pegs of the same color appear in the secret code and/or in the Codebreaker's row can cause some confusion. The basic principles are that one Key Peg corresponds to one Code Peg and, that black Key Peg takes precedence over a white one (see EXAMPLE B). Study the examples below:

KEY TO EXAMPLES.

CODE PEGS:

RD = Red

BU = Blue

YW = Yellow

GN = Green

WH = White

BK = Black

KEY PEGS:

WH = White

BK = Black

EXAMPLE A

Codemaker's secret code

RD

WH

BU

GN

WH

YW

BU

BK

Codebreaker's attempt to duplicate Secret Code

WH

BK

Codemaker's response

The response WH BK at the right indicates 1 right color in the right place BU, 1 right color in the wrong place WH, and 2 wrong colors. The Key Pegs do not indicate which colors are which.

EXAMPLE B

Codemaker's secret code

RD

BU

BN

BK

WH

YW

GN

GN

Codebreaker's attempt to duplicate Secret Code

BK

Codemaker's response

The response shows 1 right color in the right place GN. Note that the Codemaker plays only one Key Peg even though 2 green Code Pegs were played, because he has only 1 green Code Peg in his secret code. Note also that he plays a black Key Peg in preference to a white Key Peg.

EXAMPLE C

Codemaker's secret code

YW

BU

YW

BK

RD

YW

GN

WH

Codebreaker's attempt to duplicate Secret Code

WH

Codemaker's response

Just 1 white Key Peg is played YW

EXAMPLE D

Codemaker's secret code

RD

BU

RD

YW

GN

RD

RD

WH

Codebreaker's attempt to duplicate Secret Code

WH

BK

Codemaker's response

The 2 Key Pegs WH WK are for the 2 red Code Pegs corresponding to the 2 red Code Pegs in the secret code.

4) The Codebreaker places another set of Code Pegs in the 2nd row and the Codemaker places the Key Pegs in the 2nd row as appropriate. The pegs played in each row are left in position until the secret code is broken.

5) The Codebreaker keeps placing rows of Code Pegs and getting feedback from the Codemaker until he guesses the code exactly. At this point the Codemaker places 4 black Key Pegs and reveals his secret code.

6) If all 10 rows are used and the Code has not been broken, the game is over and the Codemaker is awarded 11 points (10 points + 1 bonus point). The players then switch roles.

7) Provided he has given correct information, the Codemaker gets 1 point for each row of pegs played by the Codebreaker. The players then switch roles for the next game. however, if the Codebreaker can show that the Codemaker has given wrong information, the game is replayed and 3 extra points are given to the Codebreaker.

8) Play continues for a series of games, the number being determined in advance. The winner is the player with the most points in the series.

GAME NO. 2 (2,401 permutations)

The sequence of play is exactly the same as in Game No. 1, but the codemaker may leave 1 or more Code Peg holes vacant, making the number of Code Pegs used in the game equivalent to 7. Think of a vacant hole as being another Code Peg color.

TO SCORE A SERIES OF GAMES

One player takes a white Key Peg for scoring, the other player takes black. The Codemaker inserts his score peg at the start of each score line and moves his score peg along his score line for each row of Code Pegs placed by the Codebreaker. Scoring is continuous throughout the series of games. Highest score wins.

That's all there really is to MASTERMIND (r).

The only suggestions we have to make is that if the Codebreaker continually takes too long a time at his turn, a time limit of 3 or 4 minutes per turn be set. Have Fun!