

POLYMINIX

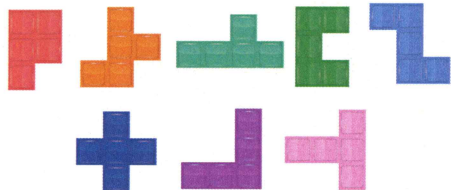
RULES OF THE GAME

Creativa Mente
LUDO ERGO SUM

Contents

60 cardboard polyominoes: 4 kits of 15 pieces, composed as follows:

8 pentominoes (polyominoes composed of five identical squares, connected together at least by one side)



4 tetrominoes (polyominoes consisting of four identical squares)



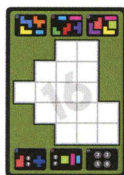
2 triminos (polyominoes consisting of three identical squares)



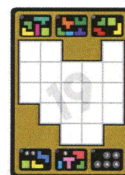
1 domino (the only polyomino consisting of two squares)



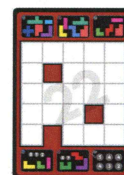
49 large format cards, which contain 98 challenges to play with, divided into 3 difficulty levels:



simple cards



medium difficulty cards



difficult cards

2 wooden dice:

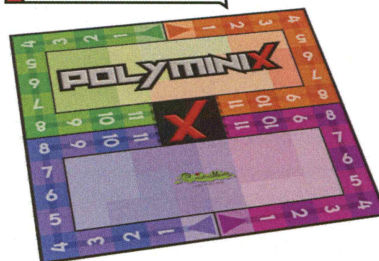


the **TURN** die, to decide how to play the game turn



the **TEST** die, to decide which of the 6 card tests must be performed

1 score board



4 wooden score pawns



this instruction manual

Purpose of the game

POLYMINIX is a board game in which you have either to place some of the polyominoes of your kit to cover the surface of the playing card or to compose a figure, as described by the problem.

During each game turn, which varies according to the TURN die, some points (1 to 3) are awarded to one or more players, who will advance their score pawn accordingly. The player who reaches the finish line first (12 points) wins.

GAME N. 1 – COVER THE SHAPE

Set Up and Start of the Game

The 49 cards are divided into three difficulty levels (green, yellow and red), and each of the three decks is shuffled and placed in the center of the table.

Each player takes a complete kit of 15 polyominoes out of the box.

Each player takes a score pawn from the box and places it on the score board, on the starting square of his own color.

The youngest player starts and the game then continues clockwise.

Game turn

The Current Player rolls the TURN die, which defines the game turn mode, as specified in the table below.



The FIRST player who completes the CHALLENGE wins 3 points. The other players don't score any points.



The FIRST player who completes the CHALLENGE wins 3 points, the SECOND 2 points and the THIRD 1 point. If there are 4 players, the player who completes the challenge last will not score any points.



ALL players who complete the CHALLENGE before the time runs out win 2 points. It is suggested to set 1 minute as the time for the test, and then to lower this time (e.g. 45", then 30") as you become faster with practice.



In this case the challenge consists in completing TWO CARDS one after the other, instead of just one. The FIRST player covering the figures on both cards wins 3 points (the other players do not score any points). If it is necessary to use one or more polyominoes, that are already used for the first card, to cover the second card, these polyominoes are taken from the first card.



Instead of using a card of the same color as the Current Player, each player is free to choose the preferred card, considering that whoever completes the test first will win 3 points if a red card was used, 2 points for a yellow card and 1 point for a green card. The other players don't score any points.



The Current Player places the TURN die on the face he prefers.

Each player, clockwise starting from the Current Player, takes the top card on the top of the deck indicated by the Current Player.

If the TURN die indicates , each player, always following the clockwise direction but leaving the Current Player last, is instead free to take the card from the deck they prefer.

If the TURN die indicates **1?** each player takes two cards from the top of the deck, always the same color as the cards taken by the Current Player. Each player chooses which side of their card they want to use. When all the players have taken the cards, the Current Player rolls the TEST die, which defines the polyominoes that must or must not be used, as specified in the table below.



All polyominoes indicated in the box at the top left must be used.



All polyominoes indicated in the box at the top center must be used.



All polyominoes indicated in the box at the bottom left must be used, plus other polyominoes of your choice: 1 polyomino if it is indicated **X**, 2 polyominoes if it is indicated **X Y** and 3 polyominoes if it is indicated **X Y Z**.



All polyominoes indicated in the box at the bottom center, plus other polyominoes (1, 2 or 3) at your choice.



All polyominoes can be used, with the exception of all those that are indicated in the box at the top right.

A+B

You must use as many polyominoes as indicated in the box at the bottom right. These polyominoes must be of the indicated surface. For instance if in the box it is indicated **2 3 5 5 5** 5 polyominoes must be used, and in particular the only domino available **2**, 1 of the 2 triminos **3** and 3 of the 8 pentominoes **5 5 5**.

The game starts when the Current Player rolls the TEST die. The players begin to cover the figure, placing their polyominoes on the white surface of their card. When all players have completed the challenge, points are awarded and players advance their score pawns by as many squares as the points they have just earned. The cards used for the challenge are placed under the corresponding deck, and the game continues with the next game turn.

REMARKS

- A square is taken as the unit of measurement of the surface to be covered. In fact the number printed on the white surface corresponds to the number of squares from which it is composed.
- The side of the square is the unit of measurement of the perimeter of the figures required in game 2.
- On each card it is indicated the size of the area of the surface to be covered, expressed as "number of squares". Especially in the three challenges **?**, **?** and **⊘** the indication of the area is very useful for choosing polyominoes with the correct number of squares.
- The polyominoes can be rotated, moved and overturned, but they cannot come out (from the surface) or overlap each other: the sum of the number of squares of the polyominoes used to cover the figure must match with the area indicated.

End of the game

The player who first reaches or exceeds the target score wins the game. If two or more players together reach the same score, greater than or equal to 12, the players with the highest same score take another turn to determine who will be the winner, and so on until only one player outperforms all the others.

GAME N. 2 – SOLVE THE PROBLEM

Set Up and Start of the Game

As for Game N.1, with the only exception that the cards are left in the box: each player takes a kit of 15 polyominoes and a score pawn, which are then placed on the starting box of the score board.

The youngest player starts and the game then continues clockwise.

Game turn

The Current Player chooses the game turn mode, choosing one among ,  and .

The Current Player rolls both dice, looks for the test to solve in the table below and announces it to all the players who, at the same time, start to compose a figure that corresponds to the requirements of the test. If for example the 2 dice show  and , a shape of area 26 and perimeter 24 has to be composed.

As for Game N.1, when all players have completed their test, points are assigned and the score pawns are moved.

End of the game

As for Game N.1, the player who first reaches or exceeds the target score wins the game.

	!	!	?	?	⊘	A+B
	 3	 12	 14	 22 ²⁰	 3	 5
	 4	 15	 18	 22 ²²	 5	 5
	 5	 24	 22	 26 ²⁴	 7	 5
	 6	 35	 24	 26 ²⁶	 9	 6
	 7	 48	 26	 28 ²⁴	 11	 6
	 8	 56	 28	 28 ²⁸	 14	 7

 L build a square with side L

 P build a rectangle of perimeter P

 N build a symmetric shape composed of N polyominoes

 A build a rectangle of area A

 A P build a figure of area A and perimeter P (in this case both requirements must be fulfilled).

 L build a square of side L with 1, 2 or 4 holes (in a symmetric position)

