7 +   1 – 4

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FANTASTICK

## A GAME OF LOGIC AND INTELLIGENCE

CreativaMente
LUDO ERGO SUM

Purpose of the Game

Turn on your mind on by rotating, moving, removing or adding matches in order to solve the puzzle that is renewed at each turn based on the face of the die and the last arrangement.

You can play two different games. In the **Game of Numbers**, it is necessary to compose **arithmetical equalities** (e.g. $3+2=5$) by modifying at each turn the element of the last equality which is indicated by the die, and some other elements as a consequence. In the **Game of Shapes**, on the other hand, **geometric figures** (triangles, trapezoids and rhombuses) must be created in a certain number, starting from the geometric composition found on the table.

Game Contents

- 25 matches:
    - 23 standard matches **A**
    - 1 good match **B**
    - 1 bad match **C**
- 1 mat **D** for placing the matches during the game and moving them all together at the end of the turn
- 1 scoring track **E** with the turn counter **F**
- 4 wooden scoring pieces **G**
- 1 turn counter piece **H**
- 1 OBLIGATION die for the Game of Numbers **I**
- 1 OBLIGATION die for the Game of Shapes **J**
- this instruction manual
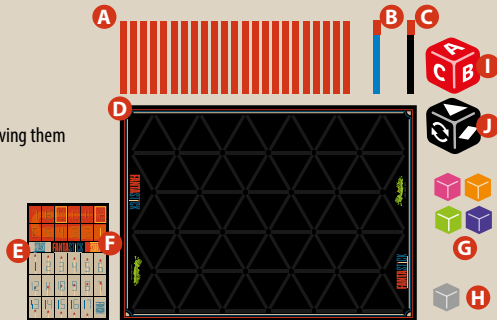
Setup and Start of the Game

Choose which of the two Games to play.

Roll the OBLIGATION die of the chosen game **I** or **J** and look for the corresponding starting arrangement at page 4 **K** or **L**, as indicated by the face of the die. Place the matches on the mat **D** as in that arrangement. All the remaining matches make up the **PILE**. All Players choose a piece **G** and place it on the START space of the scoring track **E**. Likewise the turn counter piece **H** is put on the START space **F**. The youngest player starts and the game then continues clockwise.

Game Turn

The Current Player rolls the OBLIGATION die, which indicates either what to change in the current arrangement or what to obtain in the new arrangement, as detailed in the two tables "The 6 faces of the OBLIGATION die" at the pages 2 and 3. In order to do that, the Current Player must move some matches and, as each move does correspond to a score, they must try to do it by **scoring as less as possible**. There are 4 possible moves, as detailed at page 4:

- **rotating** ↻ a match **scores for zero**. One of the two ends must always remain in contact with another match already on the table **1** and the rotating match must never place side by side to another match **2**
- **moving** ▶ a match from one location to another **scores for 1**
- **removing** ✖ a match from the mat or adding ✚ a match to the mat (by taking it from the PILE) **scores for 2**

Once the action is completed, the Current Player advances their scoring piece **G** on the scoring track by as many places as their score. The turn counter piece **H** advances by one place.

REMARKS:

- The bad match **C** can never be removed from the mat. Rotating it scores for 1 and moving it scores for 2
- Any move of the good match **B** scores for zero
- It is not possible to go back to the arrangement of the previous game turn (from Alfa to Beta and then again from Beta to Alfa). For this reason, it is advisable to keep track of the arrangement with which you start each game turn, for example by writing it on a sheet or by taking a picture

End of the Game

The game lasts 12 rounds. When the turn counter piece has reached the last space, the player whose scoring piece is furthest from the FINISH wins the game. In the event of a tie, the players furthest away from the FINISH (they alone) take one more turn of the game each, and possibly a subsequent one and so on, until whoever scores the least points wins.

If a player reaches the FINISH before their last turn, they are out of the game.

0 1 2 3 4 5 6 7 8 9   = + − × ∕

In this game we start each turn with a simple arithmetic equality (e.g. $3+2=5$), which we symbolically indicate with A * B = C (where * represents any one of the 4 arithmetic operations), and we must obtain a different one, but valid from an arithmetical point of view. The 6 faces of the OBLIGATION die indicate which part of the equality must be modified. Of course, other parts of the equality must also be changed in order to get a new valid equality.

The 6 faces of the OBLIGATION die

A You have to change the first number. In the example **M** we start from $3+2=5$ and we have to change the number 3. For example, a new valid equality can be obtained by first changing 3 into 5 and then modifying the result, obtaining $5+2=7$ (1 match moved + 1 rotated + 2 removed, but one is the good match: 3 points)

+ × − ∕ You must change the operation. For example, if you start from $3+2=5$, you first change the operation, for example $3 \times 2=5$, and then you can change C, obtaining $3 \times 2=6$ (2 matches rotated + 1 added: 2 points)

= You must move the equality to the place of the operation and vice versa. For example, if you start from $3+2=5$, first you get $3=2+5$ and then you can for example change the 2 and the operation, getting $3=8-5$ (1 match added + 1 moved: 3 points)

10 You must enter a two-digit number. If in the equality there is already a two-digit number, you can modify that number (also by removing one of the two digits) or add a second one. For example, if you start from $3+2=5$, you can enter 15 in $3 \times 5=15$ (2 matches added + 4 rotated: 4 points)

B You must change the second number

C You must change the third number

M

$3+2=5$ ▶ $5+2=5$ ▶ $5+2=9$ ▶ $5+2=7$

REMARKS:
- The OBLIGATION die must be rolled again if the face shown is the same as in the previous game turn
- The equal sign can NEVER be modified or moved: it can only be swapped with the sign of the operation in case **=**
- When the number zero is introduced in the equality (e.g. $9=9+0$) in the next round the Current Player can choose between:
  - restart with a new initial arrangement **K** of their choice among those not used yet
  - not roll the die and have the obligation to eliminate the number zero; for example $9=3+6$ (1 match removed + 1 rotated: 2 points)
- At the end of the last move it is not possible to leave any unconnected match, which is not part of a number or an operation
- It is possible to get the number 11 starting from the number 4 and making a rotation (and likewise to get the number 4 from number 11), whereas it is not possible to get the number 17 from the number 0 (having removed the match at the base of the zero)
- Multiplication can be obtained by rotating addition (and vice versa) and, similarly, division can be obtained by rotating subtraction
- It may happen that after the roll of the die there is already the solution and you don't have to do anything, for example if you start from the configuration $6 \times 1=6$ and the die indicates **=**, because $6=1 \times 6$ already is a valid equality

The Game of Shapes

In this game, each round starts with an arrangement that contains geometric shapes: the equilateral triangle, an isosceles trapezoid and a rhombus, which share an angle of 60°.

Both at the beginning and at the end of each turn there must always be one and only one shape (among the three) that has a number of repetitions greater than the other two. This shape is called the **leading shape**. For example in **N** the leading shape is the trapezoid (2 repetitions with respect to one of the rhombus), while **O** is not a valid arrangement because there are both 2 trapezoids and 2 triangles, and therefore the leading shape is not identified. If it happens that the leading shape is also the only shape in the arrangement, because the other two are not present, then the arrangement is said to be **pure**, as in **P**, where there are only 3 triangles.

The 6 faces of the OBLIGATION die

▲	The new leading shape must be the triangle
⬟	The new leading shape must be the trapezoid
◆	The new leading shape must be the rhombus

+ You must increase the number of repetitions of the leading shape, which must remain the same. For example, if there are 2 trapezoids then at least 3 trapezoids must appear

− You must decrease the number of repetitions of the leading shape, which must remain the same. If there is only 1 repetitions of the leading shape then you must change the shape, as in the case ⟳

⟳ You must change the leading shape. For example, if it is the rhombus, the new leading shape must become either the triangle or the trapezoid, and the number of repetitions is not important

REMARKS:

- If the leading shape already is the one indicated by the die, then the number of occurrences must be changed (either increased or decreased) while keeping it as the leading shape
- At the end of the last move all matches must be connected to each other and there can be no matches outside the largest leading shape. Each interior match must be part or all of one side of the leading shape. For example the arrangements **Q** and **R** are not valid because in **Q** there is a match that does not belong to any shape, whereas in **R** the leading shape is the rhombus and therefore the external trapezoid on the left is not valid
- Two arrangements are considered to be the same arrangement if they are just rotated or mirrored, as in **S**
- If the Current Player manages to obtain a pure arrangement **P** then they get 1 bonus point, making their scoring piece **G** go back one place (in the opposite direction from the FINISH), but only if it is not on the START space of the scoring path **E**
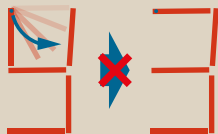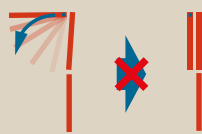
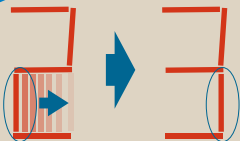## The 4 possible MOVES

Rotation (0 points)
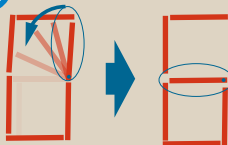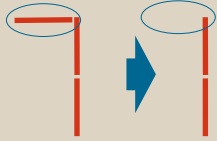

1 Rotation not allowed (pivot not connected)

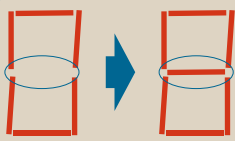**2 Rotation not allowed (2 matches side by side)**

Movement (1 point)

Removal (2 points)

Addition (2 points)

K The 6 starting arrangements of The Game of Numbers

A $3 + 2 = 5$

B $6 / 2 = 3$

C $5 \times 2 = 10$

$7 - 6 = 1$

$8 / 2 = 4$

$1 + 1 = 2$

L The 6 starting arrangements of The Game of Shapes

SOLITAIRE

Both the Game of Numbers and the Game of Shapes can also be played in **solitaire mode**.

The game lasts 9 rounds (instead of 12) and it is won if the final square with FINISH has not been reached when the turn counter piece reaches the space with 9. Both the scoring piece and the turn counter piece are placed on the corresponding START spaces.

You play as in the base game, except that you play alone. In one of the 9 turns, at your choice, you can decide to play the **wildcard** and not to advance your piece on the scoring track.

VARIANTS FOR EXPERTS

More experienced players can choose where to place the two special matches (good and bad) in the starting arrangement. Or they can even independently choose the initial arrangement.

4