



**Thank you for purchasing Tantrix.** Your set consists of 56 Bakelite tiles with painted links of red, green, blue and yellow. Each tile is unique, and with all the tiles you can play both the solitaire puzzles and the multiplayer game.

You are about to enter a spatial world of kaleidoscopic colour. Take your time, Tantrix needs to be discovered. You will find that there is some luck involved and lots of skill. It is this combination that has made Tantrix so popular, both as an enjoyable family game and as a fiendish collection of solitaire puzzles.

This booklet provides a step-by-step guide from basic puzzles through to advanced multiplayer strategy. We hope you have lots of fun!

#### Four steps to mastering Tantrix

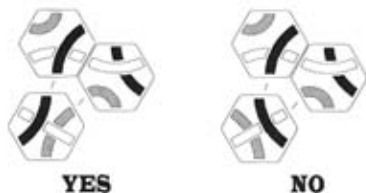
We recommend you follow these four steps, which have proven to be the fastest way to pick up the spatial skills required:

- Begin with the Discovery sequence
- Try to solve the Rainbow Puzzles
- Practice with Tantrix Solitaire
- Play the Tantrix Game (2-4 players)



The more time you spend solving the solitaire puzzles, the easier it will be to understand the strategy game. However, a few of the puzzles are in fact harder than the game. If you prefer to start playing the game immediately, turn to page 11. Whichever order you choose, keep in mind the 'golden rule', which applies to all puzzles and the game:

**The Golden Rule:** Wherever tiles touch, the colours of all connecting links must match. For example red may join only to red, blue to blue, etc.



**Fig 1:**  
All colours must match!



**Discovery Puzzles:** The objective is to build loops of various shapes and sizes, starting with just three tiles. Each new tile added creates a different and more challenging puzzle.

**Rainbow Puzzles:** A complete set of tiles can be split into five colour-coded puzzles that will test your newly acquired spatial skills.

**Tantrix Solitaire:** Tantrix Solitaire uses 14 tiles and requires both luck and skill to solve. Solitaire helps build more of the skills needed to play the Tantrix Game.

**The Tantrix Game:** Above all, Tantrix is an elegant game of strategy for two to four players. Most games take around half an hour to play. Though the rules are simple, this is not just a game of chance! The interplay between clever strategic planning and the luck factor turns Tantrix into one of the world's most fascinating games.

Tantrix was invented by Mike McManaway while camping in Patagonia. This 8<sup>th</sup> edition now includes contributions from all over the world.

*The Tantrix Team  
February 2003, Nelson, New Zealand*



## DISCOVERY PUZZLES

**Objective:**

Complete the loops.

**What you need:**

Tantrix tiles 1 to 30.



1. Lay out tiles 1 to 30 with their numbers facing up.
2. Turn over tiles 1, 2 and 3 and make a yellow loop. A loop can be any closed shape, i.e. the ends of the line must join.
3. Break up the tiles, add tile 4 and make a new loop of four. The colour of each new tile's number shows what colour loop to make (tile 4 is red). Remember the loop can be any shape as long as it is closed.
4. Break up the tiles, add tile 5 and make a new loop of five. Note that the loop is red again.
5. Continue as above up to 30 tiles, adding one tile at a time. Each new loop must include all tiles picked up so far and all touching links must match in colour. As always, the loop colour is on the back of the tile!



### Hints:

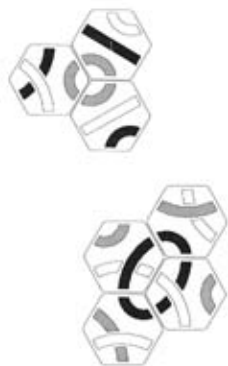
- Each new tile added makes the puzzle harder as the loop shape becomes more irregular.
- Sometimes it is easier to ignore the internal colours (see the golden rule on page 3) until the main loop is completed. Then go back and swap tiles to ensure that all other colours match!
- Any two links of the same shape can be exchanged without affecting the overall shape of the loop. There are three different link shapes: straights, bends and corners (see fig 25 on page 32).
- Solutions may not contain holes (see fig 2), which are defined as empty spaces entirely surrounded by tiles.
- Tile 15 introduces a fourth colour, which naturally makes the puzzles more challenging.



Fig 2:  
Loop with a hole

### Target times up to ten tiles

Tiles	Colour	Time
3	Yellow	20 sec
4	Red	40 sec
5	Red	1 min
6	Blue	3 min
7	Blue	6 min
8	Blue	10 min
9	Yellow	15 min
10	Red	18 min



The Discovery sequence in this set ends at tile 30.

However, it is possible to combine any number of identical 10-tile Discovery sets (sold separately) together to extend the sequence infinitely.

In this case, the second set of tiles becomes 11-20, the third set becomes 21-30, and so on. Amazingly, the colour clue on the back of the tile is always correct. For example, if ten sets are combined together, then 91 is solvable in yellow, 94 is solvable in red, and so on.



## RAINBOW PUZZLES

**Objective:** Solve each of the 5 puzzles.  
**What you need:** All 56 tiles sorted into 5 piles.

Sort the tiles into five piles according to the colours of the tile numbers (green, yellow, white, blue and red).

**Green Puzzle** (10 tiles). Make a green loop with all ten tiles.

**Yellow Puzzle** (12 tiles). Make a yellow loop with all twelve tiles.

**White Puzzle** (9 tiles). Make a loop with all nine tiles. Only one colour can be solved - but which one?

**Blue Puzzle** (10 tiles). Make a 10-tile pyramid whilst building a continuous blue line (not a loop) that passes through all tiles of the pyramid.

**Red Puzzle** (15 tiles). Make a 15-tile pyramid whilst building a continuous red line (not a loop) that passes through all tiles of the pyramid.



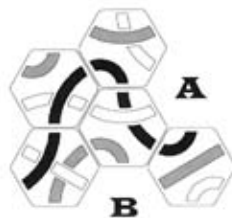
**Fig 3:**  
Pyramid shape



## TANTRIX SOLITAIRE

**Objective:** Make a red line with all 14 tiles.  
**What you need:** Tiles 1 to 14.

- Mix up the tiles and place them in a random stack so the numbers face upwards.
- Turn over the top tile and place it face up on the table. Take the next tile and join it to the first one, etc.
- You can connect to any tile already played and any colour (not only red), provided all colours match of course.
- However, if you pick up a tile which fits a 'forced space', it must be played there.



**Fig 4:**  
Forced spaces

### **What is a forced space?**

A forced space is any empty space surrounded by three or more tiles. In fig 4, both A and B are forced spaces.

- If your tile fits two or more forced spaces, it is your choice where to play it.



- If filling a forced space creates a second forced space, this too must be filled if and when you pick up a tile that fits.
- It helps to know the tiles! For example there are six red corners, two red straights and six red bends (see 'Link' on page 32).
- Think through the consequences before creating a forced space. It is generally better not to create forced spaces, as they may lead to an isolated red link away from your red line.
- Forced spaces bounded by three links of the same colour create spaces that can never be filled. They are allowed in Tantrix Solitaire but not in the Tantrix Game.



### Loop Solitaire

Once you have mastered the 14-tile line, have a go at building loops. The rules are the same except you must create a loop instead of a line and there is no forced space rule. We suggest you begin by attempting smaller loops. Achieving a complete 14-tile loop will need great skill.



## TANTRIX GAME (2-4 Players)

### Choose your opponents

Conventional games of strategy like chess are based on pure skill and the outcome between players of different ability is not in doubt. In Tantrix, there is both skill and an element of chance. The best player usually wins, but not always!



While three or four player games are often more fun socially, the two-player version is more skilful and preferred by tournament and master players.

### Choose your colour

Each player chooses a colour: red, yellow, green or blue.



## Objective of the game

The aim of the game is to make the longest line (or even better, a loop) of your chosen colour.

## Who starts ?

All 56 tiles are placed in the bag and each player takes a tile at random. Whoever has the highest number starts.

## Draw your tiles

Each player picks up five additional tiles at random so that they have a 'hand' of six tiles. The tiles are placed face up on the table in front of each player and must be visible to the other players.

## The opening move

The first player places any tile from their hand into the middle, then picks up a replacement tile from the bag. Play continues in a clockwise direction, i.e. the next player connects a tile to the first tile and so on.

## Always have six tiles in front of you

Pick up a replacement tile every time you play a tile, whether your move is free or forced. There are no exceptions.



## Forced spaces

A forced space is any empty space bounded by three tiles. In fig 5 both A and B are forced spaces. Forced spaces always have to be filled if possible as will be explained overleaf.

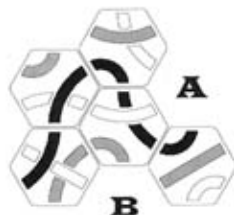


Fig 5:  
Forced spaces

## Your turn

With the possibility of forced spaces, each player's turn becomes a three-step process of:

- 1) **Filling forced spaces**, then
- 2) **Making a free move**, then
- 3) **Filling forced spaces** again.



We will now explain in more detail:

THE 3 STEPS OF EACH TURN  
AND 3 RESTRICTION RULES.



## THE THREE STEPS OF EACH TURN

### STEP 1: FILLING FORCED SPACES

Start your turn by looking for any forced spaces left unfilled by the previous player. Then check if you have tiles that fit any of these forced spaces, filling them if you can. Remember to pick up a replacement tile each time you play.

Fig 6 shows two forced spaces at A and B. The loose tile only fits at A.

Forced spaces become more common as the game progresses and filling one forced space often creates another, which you must also fill if possible.

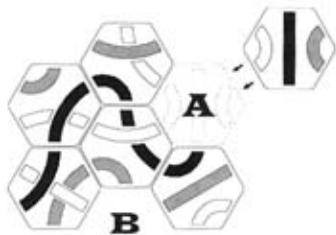


Fig 6:  
Filling a forced space

### STEP 2: MAKE YOUR FREE MOVE

After filling all the forced spaces you can, it is time for your free move. You only have one free move per turn, so choose wisely. You can select any one of your six tiles and play it



anywhere provided you obey the golden rule (see page 3) and the three restrictions (explained shortly).

It is common practice to place your tiles close to the 'Tantrix' (i.e. the tiles already played) when testing moves. However, once a tile has touched the Tantrix it may not be moved. Do not forget to pick up a replacement tile, so you always have a hand of six.

### STEP 3: FILLING FORCED SPACES

Before your turn is over, you must again check your tiles against all forced spaces. If you can fill any, you must! And pick up replacement each time you play a tile.

#### TIP: How to find a tile that fits



To check if you have a tile that fits a particular forced space, 'read' the coloured links of the forced space in a clockwise direction. Then read the coloured links around the edge of your tiles the same way. For example, if the forced space is green-blue-red, then look amongst your tiles for a green-blue-red sequence.

After a few games your recognition of shapes and colours will develop and you will find it easy to spot the tiles you need.



## THE THREE RESTRICTIONS

Players must obey the following three restrictions as long as there are tiles left in the bag.

Once the last tile has been drawn, all three restrictions are lifted immediately.



### ① *Forced spaces with three links of the same colour may not be created.*

You may not create forced spaces surrounded by three links of the same colour (e.g. red-red-red), as no tile will fit such a space.

Furthermore, if filling a forced space would create an adjacent forced space with three links of the same colour, then the original forced space must not be filled!



Fig 7:  
First restriction



### ② *A fourth surrounding tile may not be played next to a forced space.*

Do not play tiles next to forced spaces. Tiles played at X or Y (see fig 8) would create a four-sided space, which is not allowed.

You must wait until a tile is played at A before playing tiles at X or Y.

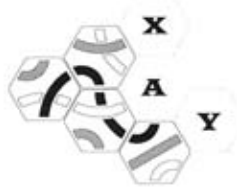


Fig 8:  
Second restriction

### ③ *Tiles may not be played along controlled sides.*

Do not play tiles along controlled sides, as this would eventually create four-sided spaces.

In fig 9 there is a forced space at A, so you may not play tiles at X, Y, or Z. This is known as a 'controlled side' as the forced space at A controls the rest of the side (X, Y, Z).



Fig 9:  
Third restriction



## The endgame

When the bag is empty (no tiles left), the three restriction rules are lifted. This period of play is called the endgame. You must still follow the forced space and golden rules, but you can now create spaces with three links of the same colour and four-sided spaces and play along controlled sides.

### The winner

The game ends when all tiles have been played. Players score one point per tile in their longest line, or two points per tile in their longest loop.

For example, a loop of 12 tiles means a score of 24 points, which beats a line of 23 tiles. Only one line or loop per player counts! The player with the highest score wins.



## STRATEGY HINTS

The following strategy section will be useful after you have played a few games. We mainly offer advice for 2-player Tantrix. Similar strategies can be attempted in 3-4 player games, but there is more luck involved and your clever ideas will not pay off quite as often.

### Connecting indirectly

When building on your line, it is generally better to maximise your indirect line length rather than connecting directly.

In fig 10 the black line is indirectly connected. Its indirect length is five, compared to White's directly connected line, which is three tiles long.



Fig 10:  
Direct and indirect connections

Sooner or later, when tiles are played at A and B, the black line will become directly connected. However, towards the end of the game be careful not to run out of the tiles that you need to connect up your remaining indirect connections.



## The first moves

- Maximise playing tiles with your colour and minimise playing tiles with your opponent's colour.
- Avoid playing isolated links of your colour that can be force-looped and look for opportunities to force-loop your opponent's isolated links. In fig 11 the black player is forced into a small loop which will 'waste' three tiles. Corners are particularly vulnerable, as are isolated bends especially if the opponent has a matching bend as in fig 12.



Fig 11:  
3-tile black loop

- Try to rescue any links at risk of being looped by connecting a tile to the link (directly or indirectly) in such a way that your opponent can no longer loop it.



Fig 12:  
4-tile black loop

## Forced spaces

The forced space rule is the most important concept in Tantrix, so learn to exploit it. Often you can play more than one tile during your turn, or force your opponent's tiles into



spaces that suit you. If there is more than one forced space to be filled, think about the order in which to play the tiles. For example, postpone undesirable forced spaces until last, in case you pick up tiles which allow other options.

Consider the situation in fig 13 where Black can force tiles B, C and D simply by playing a tile at A. Black's indirect line length will increase from 6 to 13. Experiment to find the best possible move, and try to add at least 2-3 tiles with each turn. It is okay to place tiles close to the Tantrix while testing ideas, as long as your tiles do not actually touch the Tantrix.

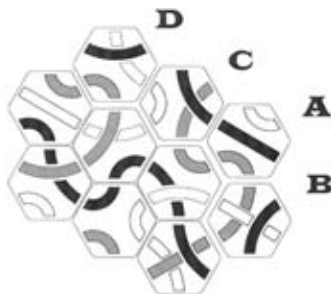


Fig 13:  
Black with 13-point line

## Tiles that fit a forced space

The forced space in fig 14 needs a black-black-white tile. At the start of a game there are five or six tiles which fit any forced space (see 'Fit analysis' on page 30). As the game progresses, these tiles may be used up. Towards the endgame



it helps to know how many of them are still in the bag. The ability to work this out is the mark of an advanced player.



Fig 14:  
Black-black-white fit

### Filling forced spaces

When two or more tiles fit the same forced space, consider the options carefully.

In fig 15, Black can choose tile A or tile B to fill the forced space. B is the better option, as Black should be able to subsequently link tile B to the main black line. The black link on tile A is further away and generally harder to connect to.

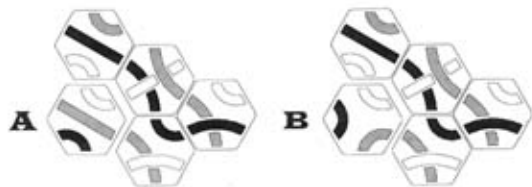


Fig 15:  
Choosing the best tile when filling forced spaces



### Medium loops

Loops of only seven to nine tiles (14-18 points) are usually too small to win, but it is likely to be too late in the game to start a new line. If you find yourself defending a medium sized loop, it will be necessary to spend the rest of the game blocking your opponent.

### Big loops

The average score in Tantrix is 22 points so any line length of twelve or more is usually worth converting into a loop. Even though large loops are rarely completed between good players, loop threats are a useful technique to distract your opponent from developing a line of their own!

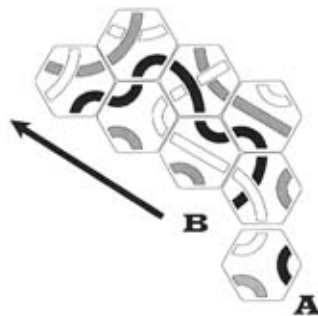


Fig 16:  
Black blocked at both ends

### Blocked lines

It is important to keep both ends of your line free and away from controlled sides. In fig 16 White uses tile A to temporarily block both ends of the black line (until the forced space at B is filled).



When your line is blocked (such as in the previous fig) it is usually better to 'waste' your least useful tiles rather than starting a new line. Building a second line is risky, as your opponent will try to stop you from ever joining it up to your main line.

### Blocked game

Blocked games develop when forced spaces remain unfilled for long periods. Typically, the player who unlocks the block will have more forced spaces to fill and thus more choice. Try to be this player by using up as many tiles per turn as possible.



Fig 17:  
Controlled sides causing a blocked game

Fig 17 shows a temporarily blocked game with only three spaces where a tile can legally be played until at least one of the forced spaces is filled. The arrows indicate the controlled sides that are created by unfilled forced spaces.



### Pair blocking

Watch out for pairs of identical colours along the edge of the Tantrix. When a pair occurs next to a forced space it can be an effective block.

Such pairs reduce the number of tiles that legally fit the forced space, because some of the tiles that would have fitted are now illegal (i.e. violate the first restriction rule).

Sometimes you can set up even more powerful blocks by creating pairs on both sides of the forced space, such as the double pair block shown in fig 18. Of the five tiles that originally fitted at A, only two can be played prior to the endgame.

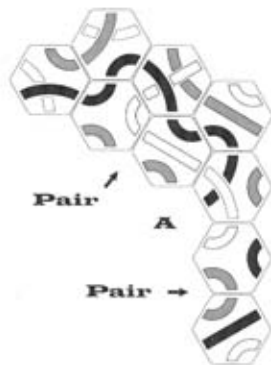
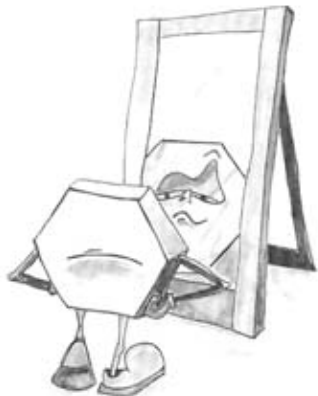


Fig 18:  
Double pair block



## Lookalike spaces

From the middle of the game onwards, there may be crucial forced spaces waiting to be filled, and the tiles that fit them may be running out. For example, if your opponent needs a red-red-blue tile, then consider creating a lookalike forced space for the same tile (i.e. another red-red-blue space). Then, if you pick up this tile, you will be able to fill the lookalike instead (see fig 26 on page 33).



## Final connections

As the endgame draws near, any remaining indirect connections in your line become increasingly vulnerable, so make sure you connect them in time. During the endgame, the restriction rules are lifted, making it easy for your opponent to permanently block indirect connections (see fig 19 on page 27).



## First endgame moves

It is desirable to have the first free move once the endgame starts. With the restrictions lifted, you can play along controlled sides, you can create four-sided forced spaces or spaces with three links of the same colour. You might be able to complete an indirect connection that was not previously accessible or stop your opponent from doing the same. So prior to the endgame, it is worth trying to set things up so you will have the first free move in the endgame.

## Endgame blocking

Try to arrive at the endgame with both ends of your line unblocked. If one end of your line is already blocked, then your opponent only has to close down the remaining end.



Fig 19:  
Blocked black line

In fig 19, Black's line is about to be blocked at A, as spaces with three links of the same colour can never be filled.



## GAME GLOSSARY

**BAG:** During the game, tiles are kept in a container called the bag and picked up at random. Players may count the number of tiles left in the bag without looking inside.

**BLOCK:** A line is blocked when no tiles fit the space at its end. Blocks can be temporary or permanent.

- In fig 20 White creates a forced space at A having counted that there are no black-grey-black tiles left, thus blocking Black's line permanently.



Fig 20:  
Permanent block  
(if no tiles that fit are left)

- In fig 21 the black line is permanently blocked at B as it ends in a space with three black links. However, this is only legal during the endgame.



Fig 21:  
Permanent block  
(no tiles that fit exist)



**CONTROLLED SIDE:** The arrow in fig 22 shows a controlled side. The third restriction rule forbids playing tiles along controlled sides. The forced space at A must be filled first, then B must be filled, then C etc.

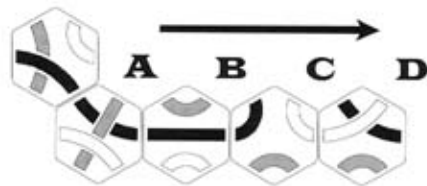


Fig 22:  
Controlled side

**DEADLOCK:** A game becomes deadlocked if a player has nowhere legal to play during their free move. In this case the game is drawn. However, deadlocks are very rare (about 1 in 10,000 games).

**DIRECT CONNECTION:** A line is said to be directly connected once all its indirect connections have been filled. In fig 10 (on page 19) the three white links are directly connected and the three black links are indirectly connected.



**DOUBLES:** Tantrix Doubles is a social version for two teams of two players. Each team chooses a colour and partners sit opposite each other. The normal game rules apply. Team talk is definitely allowed!



**ENDGAME:** The endgame begins when the last tile is drawn from the bag. The restrictions no longer apply, so it becomes easy to block the other players' lines.

**FIT ANALYSIS:** A tile fits a forced space if the three-colour sequence of the forced space matches with any three-colour sequence on the tile. Fits are classified into three types (see fig 23).

- **ABC:** Any combination of three different colours. There are five tiles that can fit any ABC space.
- **ABA:** Two of the same colour separated by a different colour. There are six tiles that can fit any ABA space.
- **AAB or ABB:** Any pair of colours plus another colour. There are six tiles that can fit any AAB or ABB space.

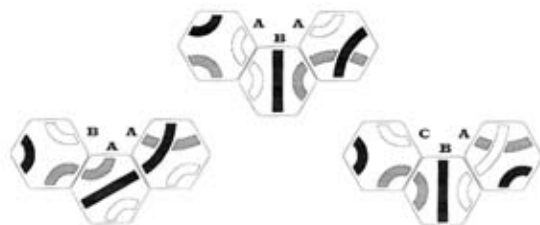


Fig 23:  
Three types of fits

**FORCED LOOP:** Force-looping is a good attacking tactic, particularly at the beginning of a game, as loops can never be enlarged! Figs 11 & 12 (on page 20) show small black forced loops.

**FORCED SPACE:** A space surrounded by three tiles is called a forced space (see fig 5 on page 13). If possible, forced spaces must be filled immediately by the player whose turn it is.

**FREE MOVE:** Each player has one free move per turn where they can place a tile of their choice in any legal position. However, players must also fill any forced spaces, both before and after their free move.



**GOLDEN RULE:** All touching tiles must have matching coloured links. In other words, different colours are not allowed to touch (see fig 1 on page 3).

**HOLES:** Holes are empty spaces entirely surrounded by tiles. Prior to the endgame, holes cannot occur because of the restriction rules. However, during the endgame holes can be legally created.

**INDIRECT CONNECTION:** Fig 24 shows an indirectly connected black line. The black line is likely to connect at A and B, and currently has an indirect length of five.



Fig 24:  
Indirect black connection

**LINE:** Any two or more links connected together form a line. The longest possible line is 42 tiles long, compared to the average line length of around 20.

**LINK:** There are three different link shapes: corners, straights and bends (see fig 25). A corner represents a 120-degree deviation in path, a bend 60 degrees and a straight 0 degrees.

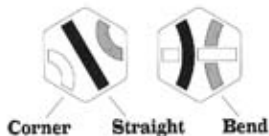


Fig 25:  
Three types of links



Any closed loop has a total of 360 degrees. To demonstrate this: Add up all the angles of links which curve TOWARDS the centre of the loop and subtract all the angles of links which turn AWAY from the centre of the loop.

**LOOKALIKE:** When a player is waiting for a specific tile to fill a forced space, the opponent may want to create a lookalike forced space. Fig 26 shows two identical forced

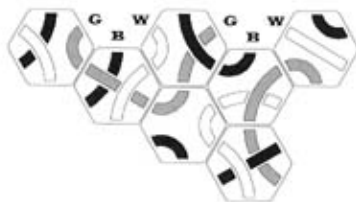


Fig 26:  
Lookalike space

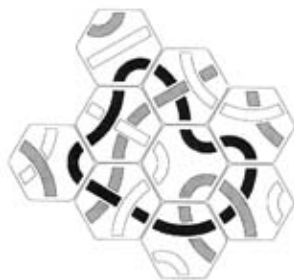


Fig 27:  
Black loop

spaces (white-black-grey). Whoever picks up a tile that fits can choose where to play it.

**LOOP:** A line which curves back to join itself is called a loop, and scores double points. The black loop in fig 27 has nine tiles, scoring eighteen points.



**MIND GAME:** An early version of Tantrix was created in 1987 and called the 'Mind Game'. It had 56 tiles with links in only two colours and a hexagonal playing board. In 1991 two more colours were added, allowing the game to be played by up to four players.

**PAIR:** A pair is two links of the same colour on adjacent tiles along the edge of the Tantrix. Pairs can help create blocks (see page 25).

**RESTRICTION RULES:** There are three types of move that are not allowed while tiles remain in the bag. These restriction rules do not apply during the endgame.

1. Do not create a forced space that is surrounded by three links of the same colour (see fig 7 on page 16).
2. Do not play a fourth surrounding tile next to a forced space (see fig 8 on page 17).
3. Do not play a tile along a controlled side (see fig 9 on page 17).

**SCORE:** A player's score is calculated by counting the number of tiles in their longest line or loop. Loops score double. The



theoretical maximum score is 84 points from a loop of 42 tiles. However, the highest actual score recorded so far is 74, whilst the lowest winning score is just nine points. A comprehensive database of records is maintained online at [Tantrix.com](http://Tantrix.com).

**STATISTICS:** In a set of 56 tiles there are:

- 18 corners of each colour.
- 18 bends of each colour.
- 6 straights of each colour.
- 42 tiles with a particular colour, e.g. 42 red tiles.
- 14 tiles missing a particular colour, e.g. 14 no-red tiles.
- 8 crossings of any two colours, e.g. red crossing blue.
- 6 tiles which fit any AAB, BAA or ABA forced spaces.
- 5 tiles which fit any ABC forced space.

**TANTRIX:** During play, 'the Tantrix' is used to refer to all tiles already played on the table. The name itself is derived from 'tangled tracks'.



**TRIPLE INTERSECTION:** The first official edition of Tantrix consisted of 64 tiles, including eight 'triple intersection' tiles (see fig 28). These tiles were removed from all subsequent editions because of their inconvenient geometrical properties.



**Fig 28:**  
Triple  
intersection

The bilateral symmetry of triple intersection tiles causes them to only fit into three different types of forced spaces whereas all other tiles have six different three-colour sequences and hence can fit into six different types of forced spaces.

Consequently, triple intersection tiles are played less often. They have a tendency to accumulate in players' hands, thereby effectively reducing the number of useful tiles available to them. As a result, games are more likely to become blocked.

## FREQUENTLY ASKED QUESTIONS

**Q:** *Are you allowed to play tiles without your own colour?*

**A:** Yes. You can play any tile anywhere, provided the colours match and the restriction rules are obeyed.

**Q:** *Does each new tile played have to connect to at least two others?*

**A:** No. Connecting to one tile is enough.

**Q:** *What happens if filling a forced space creates another forced space?*

**A:** This is normal. Each forced space must be filled during your turn, if possible.

**Q:** *If a player can fill more than one forced space, is the order important?*

**A:** Forced spaces may be filled in any sequence. The order often makes a difference, so choose carefully.





**Q:** *What happens if filling a forced space creates another space with three links of the same colour?*

**A:** In this case the original forced space may not be filled. However, during the endgame (when the restriction rules no longer apply) the forced space must be filled.

**Q:** *Do players still have a free move if they were unable to fill any forced spaces?*

**A:** Yes. Each player always has one free move per turn.

**Q:** *Towards the end of the game can you count the number of tiles left in the bag?*

**A:** Yes, but you may not look at the tiles.

**Q:** *Does the player who takes the final tile from the bag have to obey the restriction rules?*

**A:** No. Once the last tile is picked up, the restriction rules no longer apply.

**Q:** *After the restrictions are lifted, do forced spaces still have to be filled?*

**A:** Yes, always!

**Q:** *After the restriction rules are lifted, can a space be surrounded by four or more tiles?*



**A:** Yes. A space surrounded by four, five or six tiles is still considered forced and has to be filled if possible.

**Q:** *Is a space surrounded by three non-contiguous (i.e. not all connected) tiles considered a forced space?*

**A:** Yes. Of course this can only occur during the endgame.

**Q:** *After the restrictions are lifted, can you create a space which has three links of the same colour as in fig 21 on page 28?*

**A:** Yes. This is a good blocking technique.

**Q:** *Does the game end when a player is out of tiles?*

**A:** No. All players must play all their tiles. Players with no tiles effectively miss their turn.

**Q:** *If a player forms two loops, can they score them both?*

**A:** No. Only a player's best score (loop or line) counts.



## ADVANCED PUZZLES

### Pyramid puzzles

Take any six tiles from the set and form a pyramid with all colours matching. This puzzle is relatively easy if you choose all six tiles with the same three colours. More challenging variations use all four colours and more tiles (e.g. 10, 15, or 21-tile pyramids, see fig 29).

For an even harder challenge, form a continuous line of one colour that goes through all the tiles in the pyramid. In this case you need to select your tiles carefully.



Fig 29:  
15-tile pyramid

### Super 5 puzzles

These are a collection of traditional Tantrix puzzles ranging in difficulty from Junior to Genius. Like the Rainbow puzzles, they use all 56 tiles just once, so you can split up a complete set as follows:



**JUNIOR:**

3 5 8 12 14 43 46 50 52 54

**STUDENT:**

19 21 24 25 29 31 32 40 41 42

**PROFESSOR:**

2 11 15 17 20 30 38 39 44 45 51 56

**MASTER:**

18 22 23 26 27 33 34 35 36 47 53 55

**GENIUS:**

1 4 6 7 9 10 13 16 28 37 48 49

**JUNIOR** 10 tiles: (3, 5, 8, 12, 14, 43, 46, 50, 52, 54)

Choose a colour and make a loop using all ten tiles. Only one colour has a solution.

**STUDENT** 10 tiles: (19, 21, 24, 25, 29, 31, 32, 40, 41, 42)

Choose a colour and make a loop using all ten tiles. Only one colour has a solution.





**PROFESSOR** 12 tiles:

(2, 11, 15, 17, 20, 30, 38, 39, 44, 45, 51, 56)

Choose two colours. Make two loops simultaneously, one of each colour! But which two colours work?

**MASTER** 12 tiles:

(18, 22, 23, 26, 27, 33, 34, 35, 36, 47, 53, 55)

Choose a colour and make a loop using all twelve tiles. Only one colour has a solution.

**GENIUS** 12 tiles:

(1, 4, 6, 7, 9, 10, 13, 16, 28, 37, 48, 49)

Choose two colours (but not green) and make two lines simultaneously. For example, if you choose red and blue, all the red links must be in a continuous red line, at the same time as all the blue links are in a continuous blue line.

The Genius has become one of the most famous Tantrix puzzles and is definitely one of the hardest. There are two colour combinations which have solutions.



## The Unsolved Puzzles

The two Unsolved Tantrix Puzzles are the ultimate goal for puzzle addicts. Both puzzles use all 56 tiles and can be made into any shape. Naturally, all colours have to match.

Computers have shown the theoretical best solution to be 146 for the 'Four Line Puzzle' and 136 for the 'Four Loop Puzzle'. At the time of writing the best human attempts were 133 (four loops) and 140 (four lines). Nobody has yet found a perfect solution to either puzzle without the help of a computer, so if you do we would like to hear about it!

### **FOUR LINE PUZZLE**

Using all 56 tiles, make four long lines simultaneously, one of each colour. Your score is the combined total of each of the four lines. Only the longest line of each colour counts.

### **FOUR LOOP PUZZLE**

Using all 56 tiles, make four big loops simultaneously, one of each colour. Your score is the combined total of each of the four loops. Only the longest loop of each colour counts. Score one point per tile in each loop (in contrast to the Tantrix Game where loops score double).



## TANTRIX PATTERNS

### For young children

Tantrix can be a fun and educational aid to early child development. Problem solving, pattern recognition, and the ability to sort and classify objects into groups are important skills to develop in the home or classroom.

Spontaneous use of Tantrix tiles will depend on the children's capabilities. The youngest will play with the tiles casually and turn them all coloured side up. Instinctively they will join the tiles together and try to match the colours. Some will notice the different shapes of bands, others will discover by themselves the possibility of making paths of one colour.

Using a subset of tiles with three different colours (as opposed to four) reduces the difficulty of any Tantrix activity. The addition of the fourth colour makes any problem more challenging. With perseverance, children as young as four can solve simple loop puzzles. From the age of eight, children are easily capable of playing the game against others.



### Symmetrical & artistic patterns

Among the countless patterns that can be created using Tantrix tiles, some are stunningly beautiful. For example, recreate the pattern below:

1) Lay out the 45 tiles in a pyramid as shown in the diagram.

2) Then turn all tiles face up, carefully maintaining the relative position of each tile.

3) Now rotate the tiles until all colours match. Here is a clue: First, make a yellow loop with tiles 43, 45 and 49. The positions of the other tiles will fall into place while you match up colours from this starting point.

