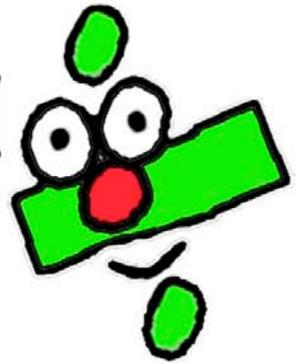




Math Games for Home and School



A resource for
Kivalliq Math Month



Preface

This collection of math games has been compiled from the British website Math Sphere (www.mathsphere.co.uk) . It contains most reproducibles necessary to play each game. Peruse the booklet, select a game, and photocopy it for use in the classroom, an open house, or send it home for students to play with their families.

Laminating the game boards will increase their durability and placing them in zip-lock bags will enable you to manage their usage and storage.

Although this collection was produced to support Kivalliq Math Month, it can be used throughout the year to motivate your students. These games work especially well as Math Centers.

If you have any games, challenges, or ideas that you think are worth sharing with other teachers in the Kivalliq region, please email them to j_kreuger@kivalliq.edu.nu.ca

Don't forget to ask your Principal to register your school for Math Month Activities so that you are eligible for a KSEC Math Month grant.

Jim Kreuger
Baker Lake, October/09

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Mathematics Games

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THIRTY ONE!

Equipment:

24 counters, paper and pencil to record totals
a 'thirty one' playing board.

Rules:

This is a two player game.

Each player takes it in turn to place a counter over one of the numbers.

When a counter is placed on the board the number is added to the total of previous numbers. This total is kept between the two players - not one total each. It is a good idea to record this on paper!

Each player tries to make the total come to exactly 31. The player who does so is the winner.

If a player places a counter to make the total over 31 he/she loses.

On the next page you will find a board which can be printed out onto card.

THIRTY ONE!

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Now, I think 6 is important in this game - I can't leave 31 take away 6 which is err

Rules:

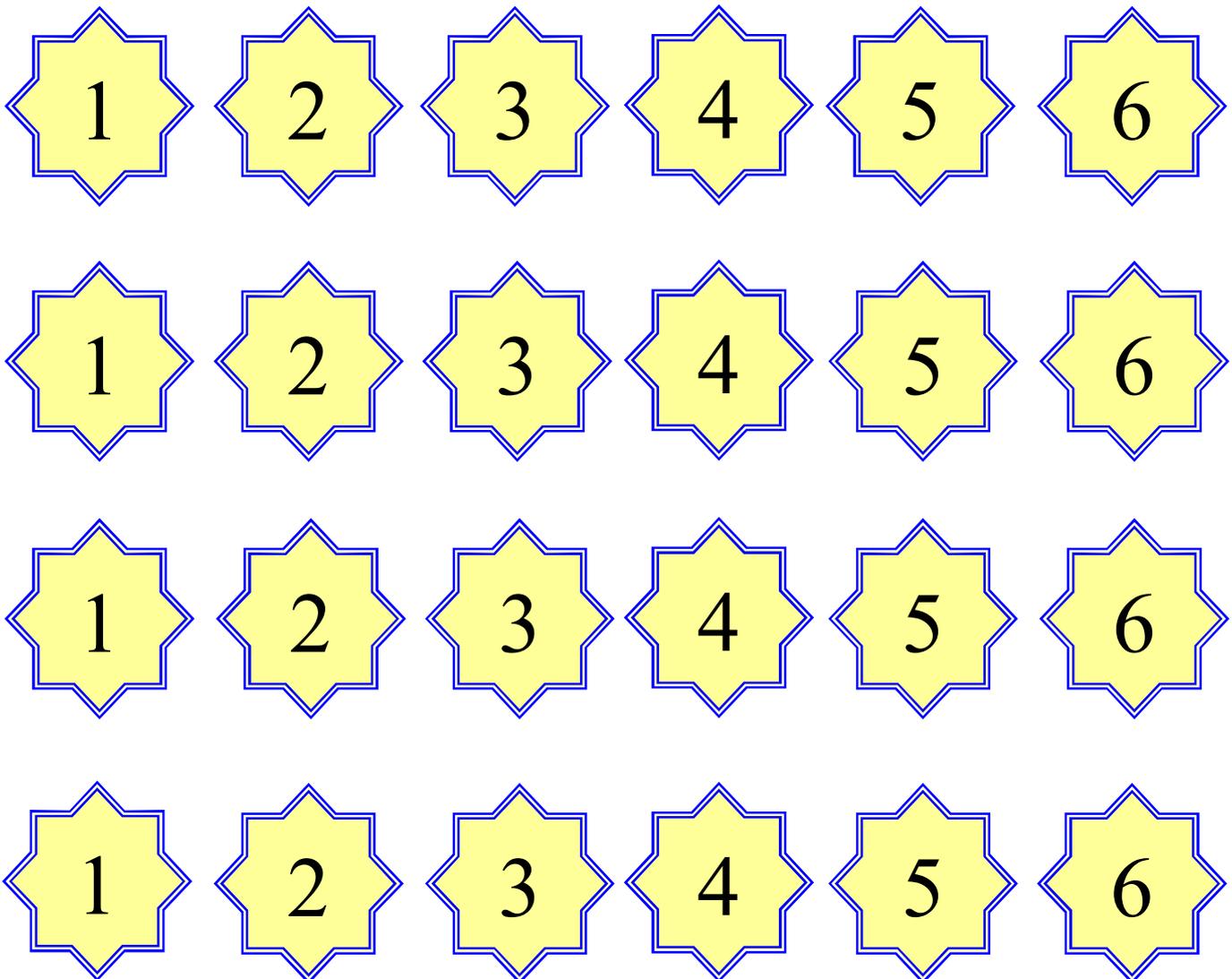
This is a two player game.

Each player takes it in turn to place a counter over one of the numbers.

When a counter is placed on the board the number is added to the total of previous numbers. This total is kept between the two players - not one total each. It is a good idea to record this on paper!

Each player tries to make the total come to exactly 31. The player who does so is the winner.

If a player places a counter to make the total over 31 he/she loses.



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FIFTEEN UP!

Equipment:

9 cards, numbered 1 to 9

a 3 x 3 square playing board

Rules:

This is a game for two people based on the 'magic square' idea.

The aim is to make a line of three cards which totals 15.

Shuffle the cards and place face down on the table.

The player going first takes the top card and places it on the board.

Then the second player has his/her turn.

The first player to make a straight line of 15 in any direction (including diagonals) is the winner.

On the next page you will find a board which can be printed out onto card, followed by a set of 1-9 cards. It is a good idea to cut out and either laminate or 'sticky back' these cards to make them last longer.

FIFTEEN UP!

www.mathsphere.co.uk

Now, three numbers
that make 15 - that's
1, 5 and 9 or



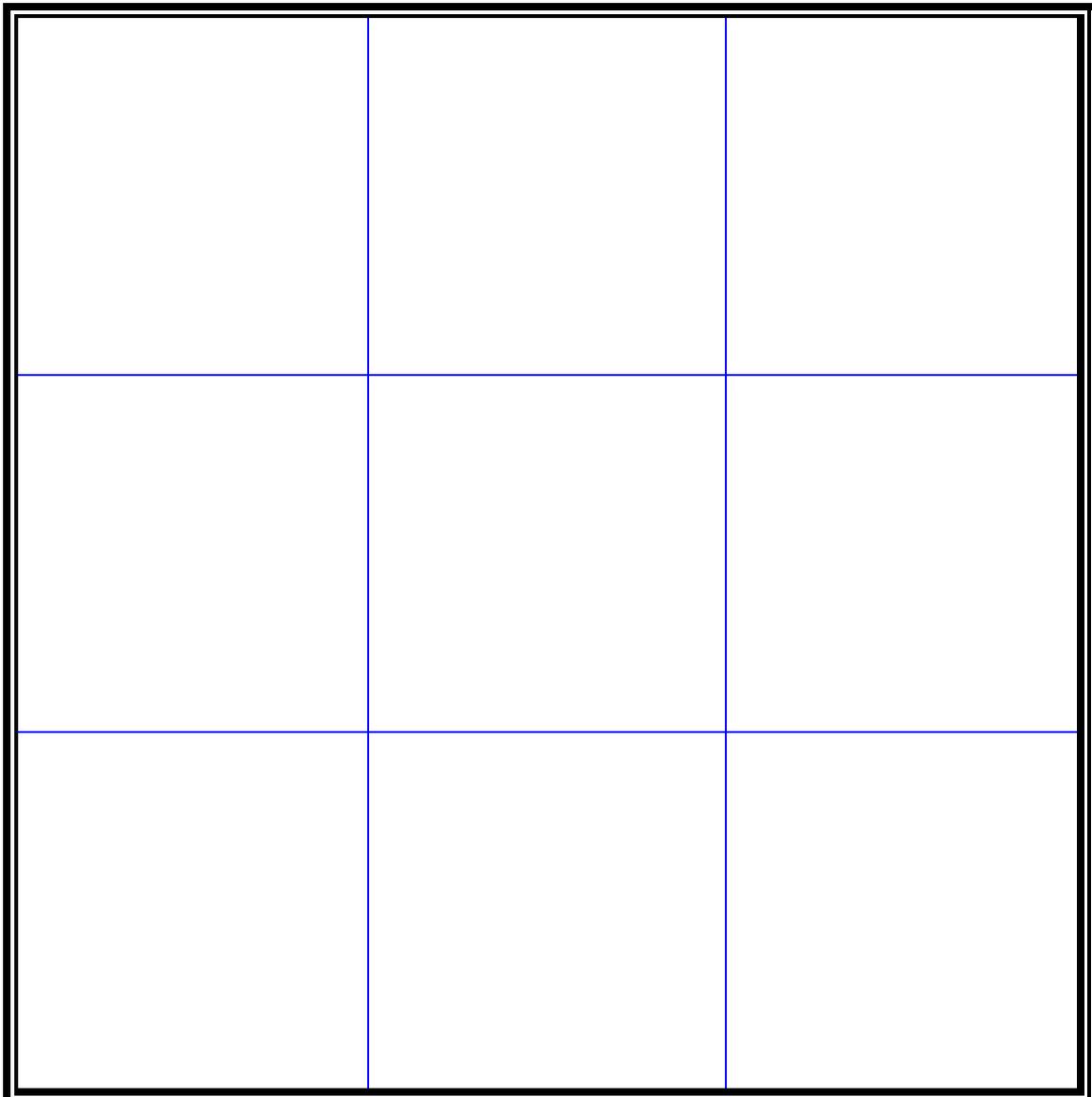
The aim is to make a line of three cards which totals 15.

Shuffle the cards and place face down on the table.

The player going first takes the top card and places it on the board.

Then the second player has his/her turn.

The first player to make a straight line of 15 in any direction (including diagonals) is the winner.



FIFTEEN UP!

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1	2	3
4	5	6
7	8	9

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THREE HEXAGON

Equipment:

Two sets of three counters.

A playing board

Rules:

This is a game for two people.

Each player has three counters.

The aim of the game is to get the three counters in a straight line.

The player going first places a counter on one of the circles.

The second player then places one of his/her counters on a circle. This continues until all the counters have been placed.

If neither player has got 3 counters in a straight line then the first player slides a counter along a line to a circle that is not already covered.

The other player then slides a counter to an adjacent circle. Counters can only move along one line into an empty space. They can not jump over counters.

If a player can not move a counter she/he misses a go.

On the next page you will find a board which can be printed out onto card. It is a good idea to cut out and either laminate or 'sticky back' this board.

THREE HEXAGON

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Rules:

This is a game for two people.

Each player has three counters.

The aim of the game is to get the three counters in a straight line.

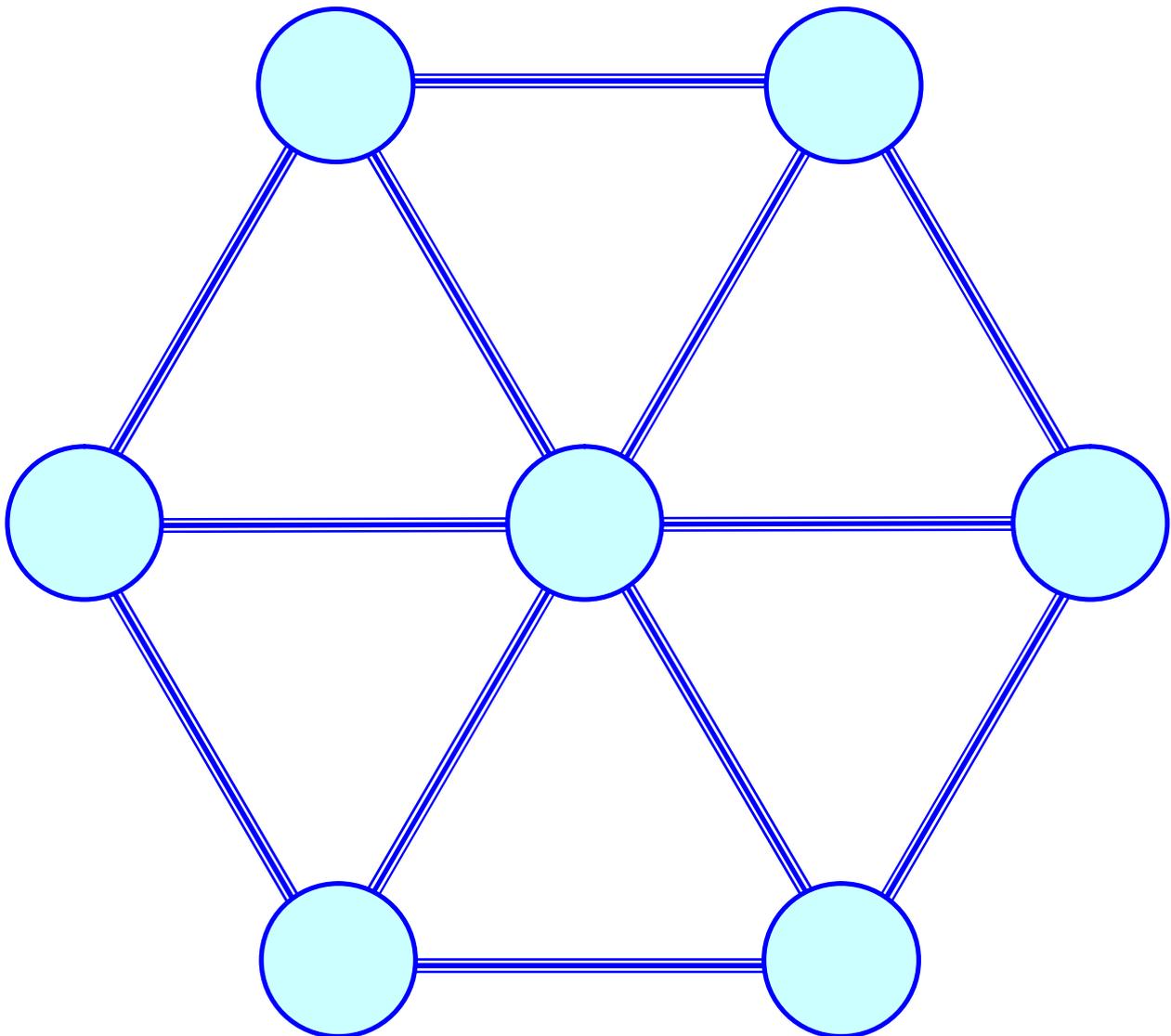
The player going first places a counter on one of the circles.

The second player then places one of his/her counters on a circle.

This continues until all the counters have been placed.

If neither player has got 3 counters in a straight line then the first player slides a counter along a line to a circle that is not already covered.

The other player then slides a counter to an adjacent circle. Counters can only move along one line into an empty space. They can not jump over counters. If a player can not move a counter she/he misses a go.



Mathematics Games

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FOUR STAR

Equipment:

Two sets of four counters.

A playing board

Rules:

This is a game for two people.

Each player has four counters.

The aim of the game is to get the four counters in a straight line.

The player going first places a counter on one of the circles.

Then the second player places one of his/her counters on a circle. This continues until all the counters have been placed.

If neither player has got 4 counters in a straight line then the first player slides a counter along a line to a circle that is not already covered.

The other player then slides a counter to an adjacent circle. Counters can only move along one line into an empty space. They can not jump over counters.

If a player can not move a counter she/he misses a go.

This is best played at a fast pace and a time limit set for winning.

On the next page you will find a board which can be printed out onto card. It is a good idea to cut out and either laminate or 'sticky back' this board.

FOUR STAR

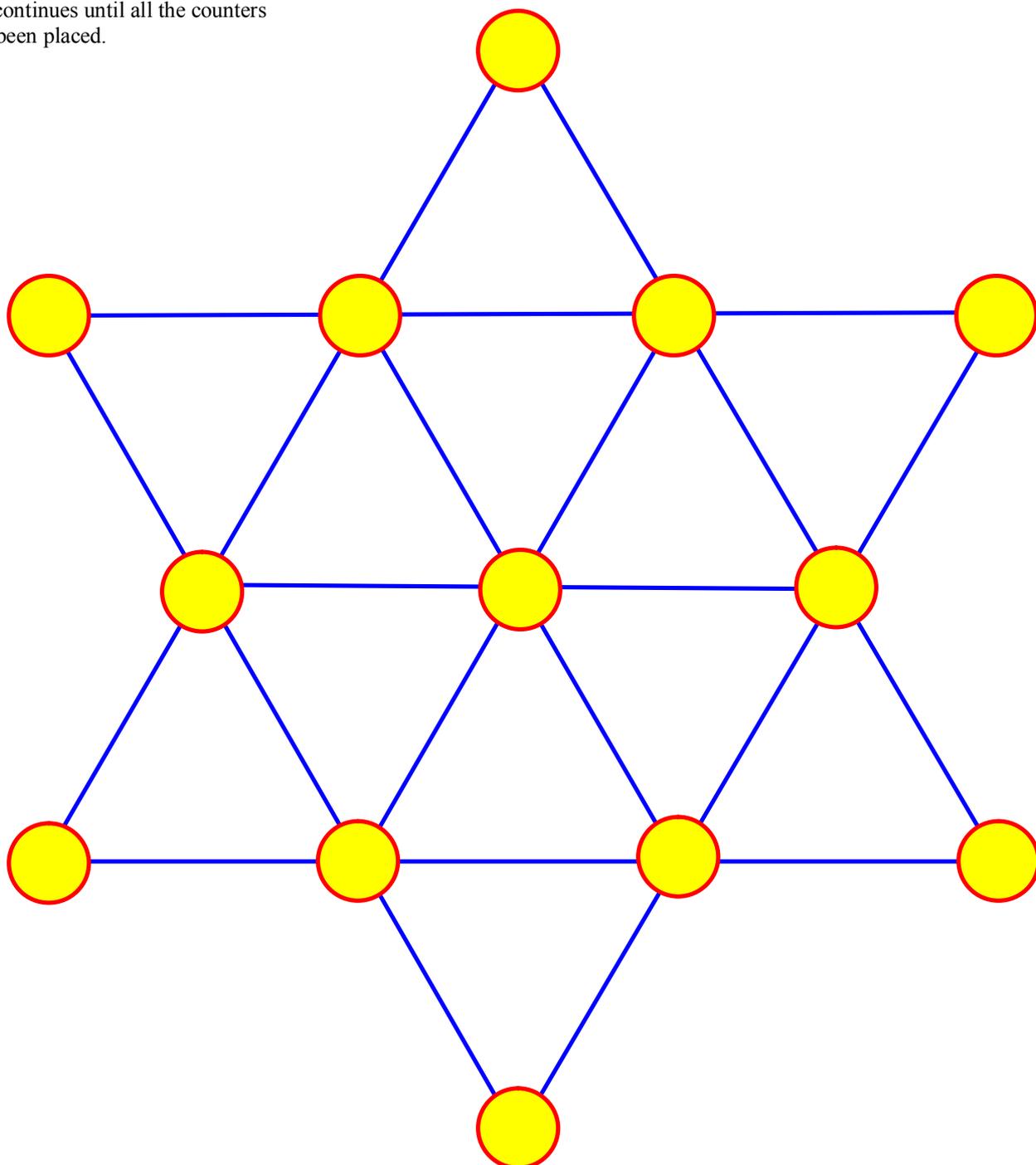
www.mathsphere.co.uk

Rules:

This is a game for two people.
Each player has four counters.
The aim of the game is to get the four counters in a straight line.
The player going first places a counter on one of the circles.
The second player then places one of his/her counters on a circle.
This continues until all the counters have been placed.

If neither player has got 4 counters in a straight line then the first player slides a counter along a line to a circle that is not already covered.

The other player then slides a counter to an adjacent circle. Counters can only move along one line into an empty space. They can not jump over counters. If a player can not move a counter she/he misses a go.





CRISS CROSS THREE - ADDITION 1



Equipment:

Red and blue counters (or similar), calculator

How to play:

A game for two players.

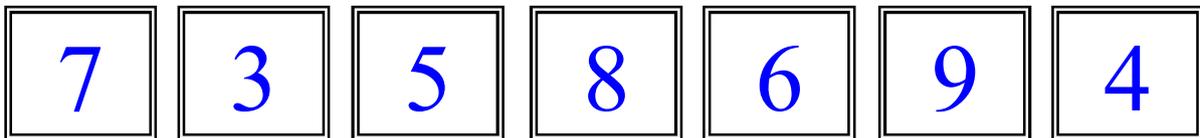
Player 1 chooses two numbers from the list below.

Add the two numbers on the calculator. If the answer is on the grid place a red counter on that square.

Player 2 chooses two numbers from the list below and adds them on the calculator. If the answer is on the grid place a blue counter on that square.

Once a number has been covered it can not be covered again.

The winner is the first person to put three counters in a row, across, down or diagonally.



13	10	9
12	17	15
16	14	11



CRISS CROSS THREE - ADDITION 2



Equipment:

Red and blue counters (or similar), calculator

How to play:

A game for two players.

Player 1 chooses two numbers from the list below.

Add the two numbers on the calculator. If the answer is on the grid place a red counter on that square.

Player 2 chooses two numbers from the list below and adds them on the calculator. If the answer is on the grid place a blue counter on that square.

Once a number has been covered it can not be covered again.

The winner is the first person to put three counters in a row, across, down or diagonally.

7	10	12	6	9	8	11
---	----	----	---	---	---	----

18	14	22
16	19	15
17	20	21



CRISS CROSS FOUR - ADDITION 3

Equipment:

Red and blue counters (or similar), calculator



How to play:

A game for two players.

Player 1 chooses two numbers from the list below.

Add the two numbers on the calculator. If the answer is on the grid place a red counter on that square.

Player 2 chooses two numbers from the list below and adds them on the calculator. If the answer is on the grid place a blue counter on that square.

Once a number has been covered it can not be covered again.

The winner is the first person to put three counters in a row, across, down or diagonally.

13	24	28	45	17	32	31
----	----	----	----	----	----	----

76	37	49	59
41	52	69	77
73	48	63	44
62	45	56	60



CRISS CROSS FOUR - ADDITION 4

Equipment:

Red and blue counters (or similar), calculator



How to play:

A game for two players.

Player 1 chooses two numbers from the list below.

Add the two numbers on the calculator. If the answer is on the grid place a red counter on that square.

Player 2 chooses two numbers from the list below and adds them on the calculator. If the answer is on the grid place a blue counter on that square.

Once a number has been covered it can not be covered again.

The winner is the first person to put three counters in a row, across, down or diagonally.

122	83	74	105	96	117	138
-----	----	----	-----	----	-----	-----

260	157	191	201
205	243	170	221
196	200	239	196
188	213	218	234



CRISS CROSS FOUR - ADDITION 5

Equipment:

Red and blue counters (or similar), calculator



How to play:

A game for two players.

Player 1 chooses two numbers from the list below.

Add the two numbers on the calculator. If the answer is on the grid place a red counter on that square.

Player 2 chooses two numbers from the list below and adds them on the calculator. If the answer is on the grid place a blue counter on that square.

Once a number has been covered it can not be covered again.

The winner is the first person to put three counters in a row, across, down or diagonally.

69	127	103	78	94	136	85
----	-----	-----	----	----	-----	----

147	205	263	212
230	196	214	197
239	221	163	181
188	179	154	172

Mathematics Games

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Balloon twos

Equipment:

A calculator
A playing board and crayons or counters

Rules:

This is a game for two people and is based on the two times table.

The aim is to colour (or cover with counters) all the balloons held by your ratty.

Make your calculator into a 'multiply by 2' machine.

Do this by pressing

2

x

x

=

0

Then player one types in a number and presses

=

If the answer is one of his/her balloons he/she can colour it in. (Or place a counter over it).

Then the second player has his/her go and play continues until all the balloons have been coloured.

Remember: just press key in the number and press

=

.

On the next page you will find a board which can be printed out onto card. It is a good idea to cut out and either laminate or 'sticky back' these cards to make them last longer.

BALLOON TWOS!

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This is a game for two people and is based on the two times table.
The aim is to colour (or cover with counters) all the balloons held by your ratty.
Make your calculator into a 'multiply by 2' machine.

Do this by pressing

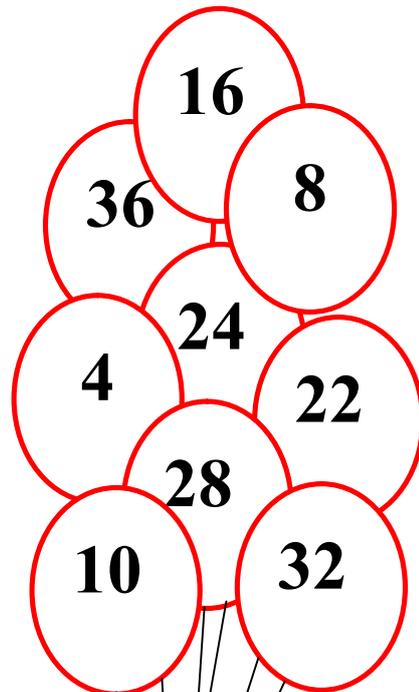
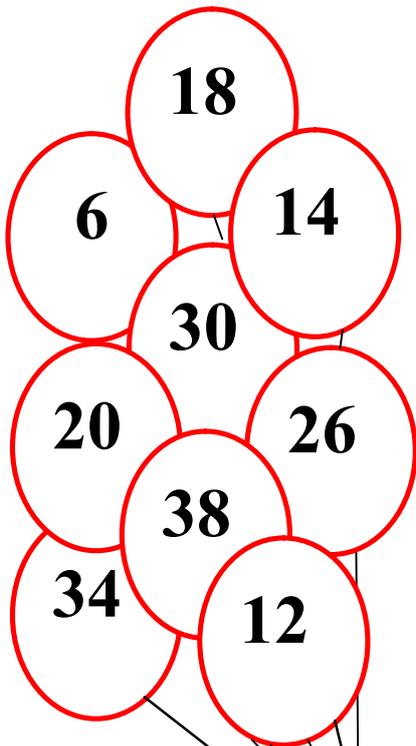
Then player one types in a number and presses

If the answer is one of his/her balloons she can colour it in. (Or place a counter over it).

Then the second player has his/her go and play continues until all the balloons have been coloured.

Remember: just press key in the number and press

Don't forget
your calculator.



Mathematics Games

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Dice Bingo

Equipment:

Pencils

2 dice

A set of 5 x 5 square grids



Rules:

This is a game for a whole class, using the probability of the totals of two dice being thrown.

Each player places 25 numbers, each number between 2 and 12, on the 5 x 5 grid. They can use a number as many times as they like.

The teacher (or helper) then rolls two dice and calls out the total.

If a player has this number on their grid they then circle it.

If a player has this number more than once they can choose which of them to circle, but can only circle one number per roll of the dice.

The winner is the person who first circles all his/her numbers.

(It is a good idea for the teacher to keep a record of the totals as they are called out to ensure that the winner has correctly marked his/her square.)

Optional: to keep interest, five in a row, across, down or diagonally, can also be a winner.

DICE BINGO!

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Co-ordinate Bingo

Equipment:

Pencils

A set of co-ordinate grids



Rules:

This is a game for a whole class, getting them more familiar with co-ordinates in the first quadrant, plotting points on lines rather than spaces.

Each player places 15 crosses on the grid.

The teacher then calls out co-ordinates such as (2,4)

If a player has put a cross at this point they then circle it.

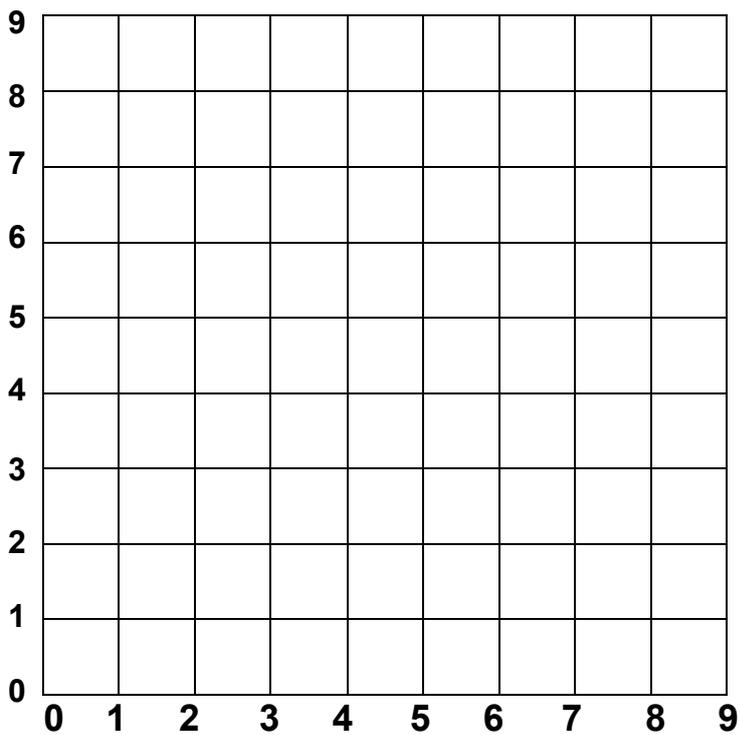
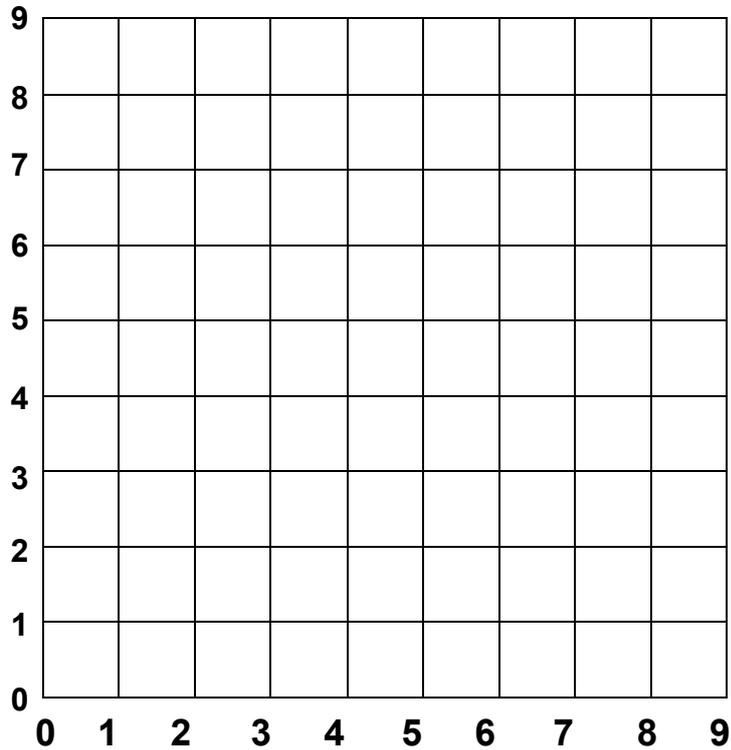
The winner is the first player to have circled all 15 numbers. He/she should call out the 15 winning co-ordinates as a check.

(It is a good idea for the teacher to mark the co-ordinates as they are called out to ensure that the winner has correctly marked his/her square.)

A grid for a more advanced version of this game is also provided, using all four quadrants

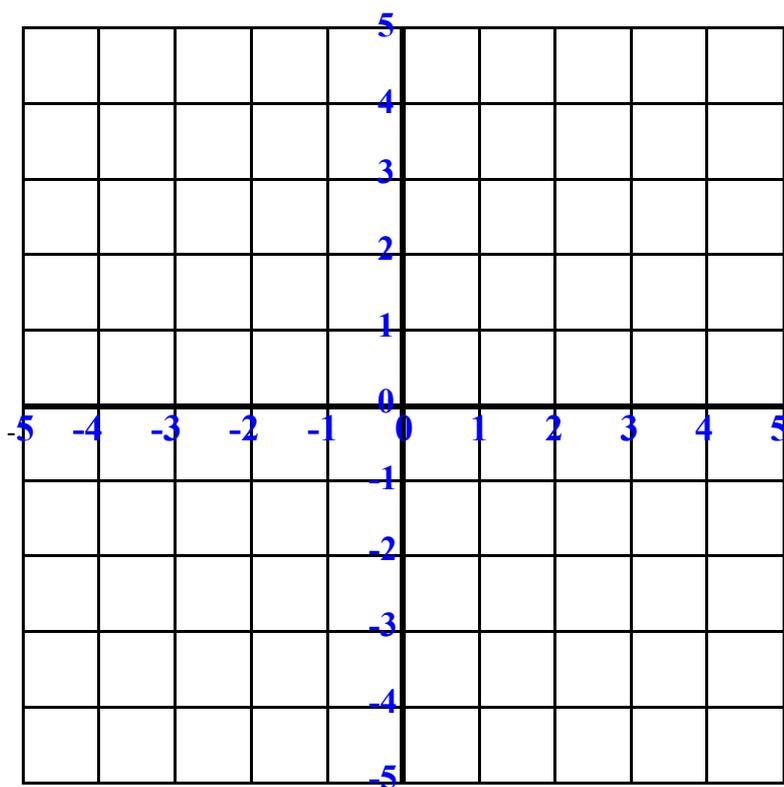
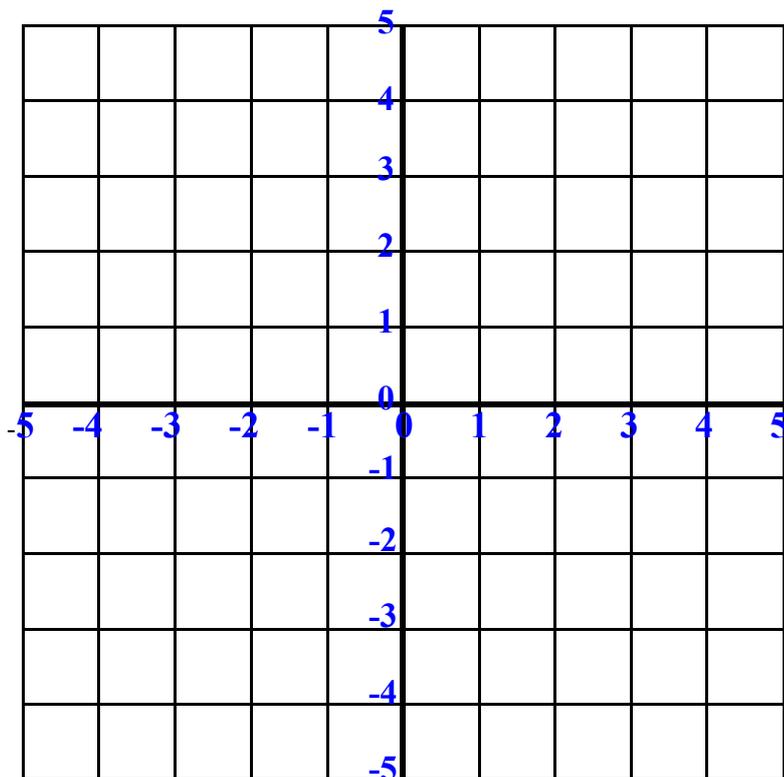
CO-ORDINATE BINGO!

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CO-ORDINATE BINGO!

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Mathematics Games

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Multiplication Bingo

Equipment:

Pencils

A set of tables squares



Rules:

This is a game for a whole class, getting them more familiar with a tables square and how to use it.

Each player circles 15 of the answers on a tables square.

The teacher then calls out tables questions such as: 4 times 6.

If a player has circled this answer they quickly cross it out, (or colour it in).

The winner is the first player to have crossed out all 15 numbers. He/she should call out the 15 winning multiplication sums.

(It is a good idea for the teacher to cross out the answers as they are called out to ensure that the winner has correctly marked his/her square.)

MULTIPLICATION BINGO!

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1	2	3	4	5	6	7	8	9	10
2	4	6	8	10	12	14	16	18	20
3	6	9	12	15	18	21	24	27	30
4	8	12	16	20	24	28	32	36	40
5	10	15	20	25	30	35	40	45	50
6	12	18	24	30	36	42	48	54	60
7	14	21	28	35	42	49	56	63	70
8	16	24	32	40	48	56	64	72	80
9	18	27	36	45	54	63	72	81	90
10	20	30	40	50	60	70	80	90	100

Ask your teacher how many numbers you need to circle.



1	2	3	4	5	6	7	8	9	10
2	4	6	8	10	12	14	16	18	20
3	6	9	12	15	18	21	24	27	30
4	8	12	16	20	24	28	32	36	40
5	10	15	20	25	30	35	40	45	50
6	12	18	24	30	36	42	48	54	60
7	14	21	28	35	42	49	56	63	70
8	16	24	32	40	48	56	64	72	80
9	18	27	36	45	54	63	72	81	90
10	20	30	40	50	60	70	80	90	100

Mathematics Games

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SQUARE BOXES

Equipment:

Paper and pencil.
'Dotty' paper makes this easier.

Rules:

This is a two player game.

Each player takes it in turn to join two dots next to each other, in a straight line - no diagonal lines allowed.

If a player completes a square he/she initials it inside, and then takes another go.

The winner is the player who completes the most squares at the end.

On the next page you will find a set of dots which can be printed out onto card.

BOXES

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Rules:

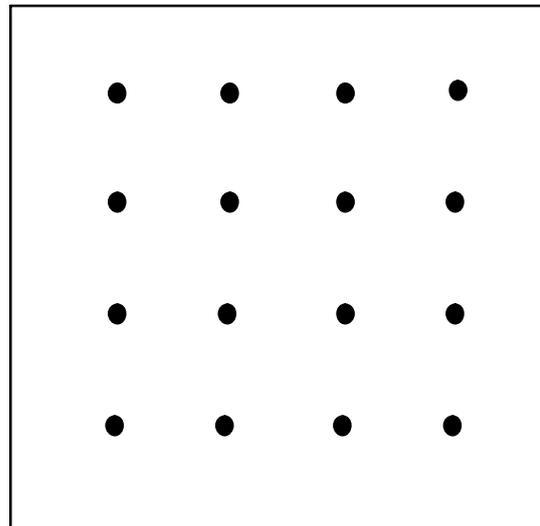
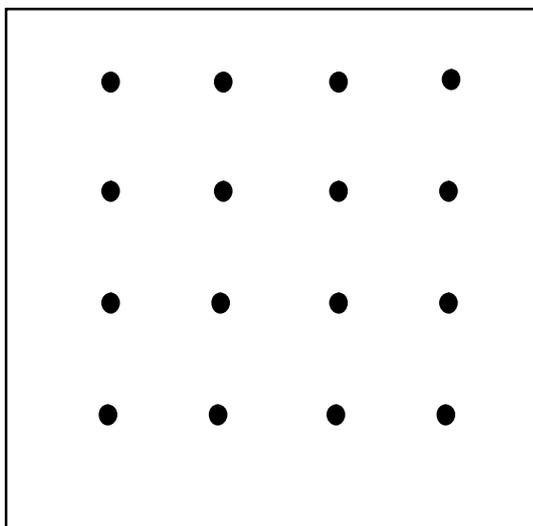
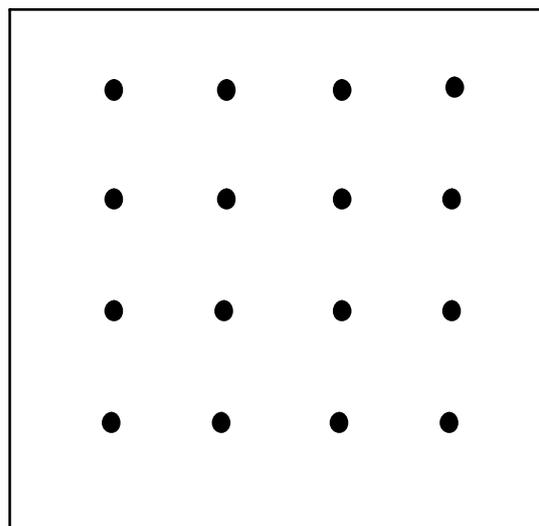
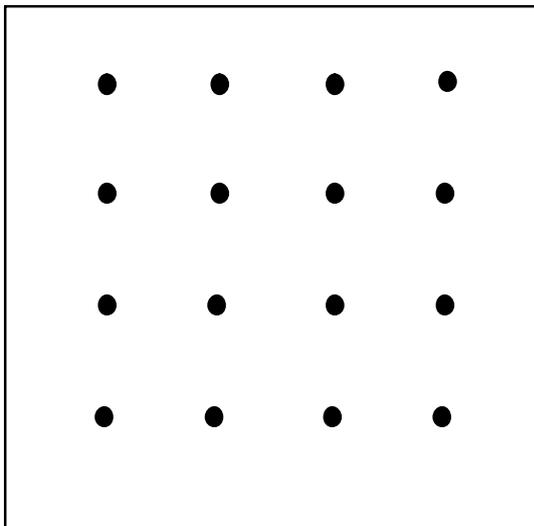
This is a two player game.

Each player takes it in turn to join two dots next to each other, in a straight line - no diagonal lines allowed.

If a player completes a square he/she initials it inside, and then takes another go.

The winner is the player who completes the most squares at the end.

You have to watch really carefully playing this game!



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CROSS THE BRIDGE!

Equipment:

2 dice
2 sets of 10 counters
a playing board

Rules:

This is a game for two people based on the probability of throwing two dice (1 to 6).

Each player has 10 counters that they place on the circles on their side of the river. They can place as many as they like on any particular number.

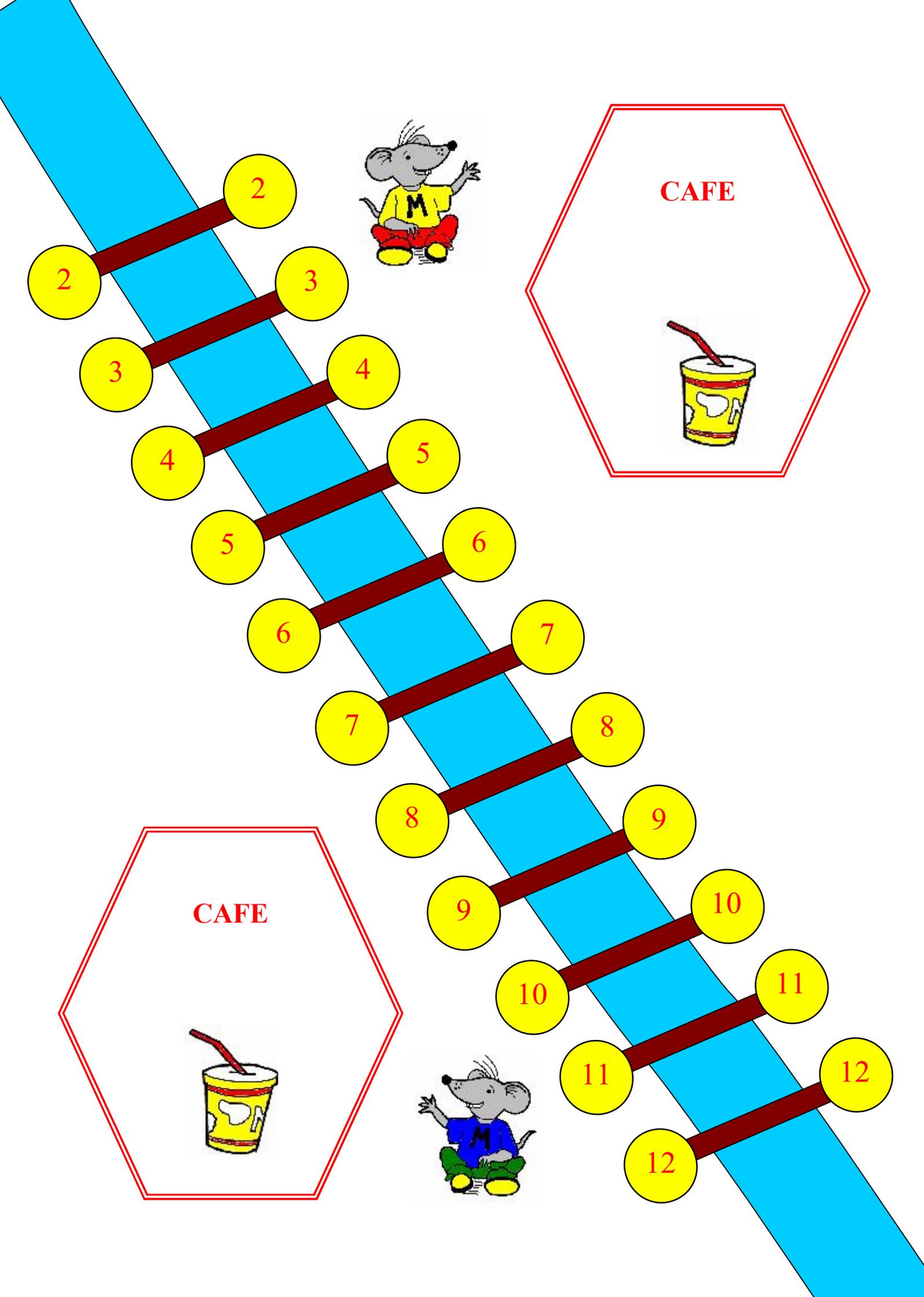
The two dice are thrown and if the total matches a number covered by a counter then one counter is moved across the bridge into the cafe.

The aim is to be the first to get all your counters across the bridges to the café.

Only one counter can be moved at any one time. Players take it in turn to roll the dice and move their counters across.

Optional: if a player can not move a counter across the bridge they can have the option of moving a counter to another number ready for their next turn.

On the next page you will find a board which can be printed out onto card. It is a good idea to cut out and either laminate or 'sticky back' these cards to make them last longer.



CAFE



- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

Mathematics Games

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DEADLY RED

Equipment:

12 coloured counters, one red counter and a playing board.

Rules:

This is a game for two people, but could be played by three.

Place a red counter on the middle dot and the 12 black counters on all the other dots.

The player going first takes away any number of counters - but they must all be from a straight line.

Then the second player has his/her turn.

The player who takes the red counter loses.

On the next page you will find a board which can be printed out onto card. It is a good idea to cut out and either laminate or 'sticky back' this board.

Alternative rules:

1. The player taking the last counter (red) is the winner.

DEADLY RED

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Rules:

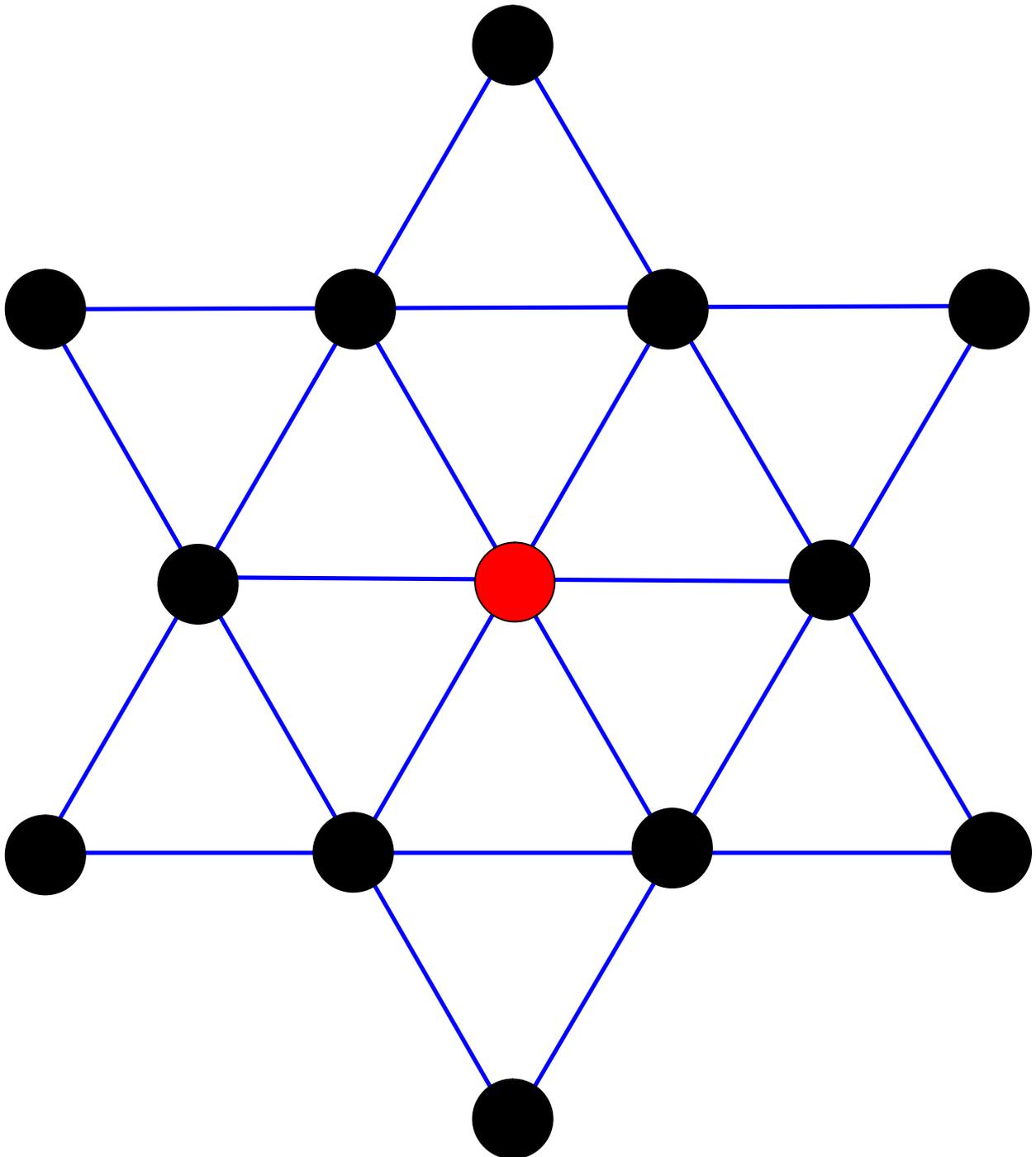
This is a game for two people, but could be played by three.

Place a red counter on the middle dot and the 12 black counters on all the other dots.

The player going first takes away any number of counters - but they must all be from a straight line.

Then the second player has his/her turn.

The player who takes the red counter loses.



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DIVING BOARD

Equipment:

5 counters and a playing board.

Rules:

This is a game for two people, but could be played by three.

The circle in the middle is the swimming pool and the 5 rectangles are the diving boards.

A counter is placed on each of the larger circles at the far end of each board - these are your divers.

The player going first moves any one counter or diver along any number of circles towards the pool.

Once a diver is at the end of the diving board they can dive into the pool.

Then the second player has his/her turn.

The player who is last to move one of the divers into the pool is the winner.

On the next page you will find a board which can be printed out onto card. It is a good idea to cut out and either laminate or 'sticky back' this board.

Alternative rules:

1. Divers can dive straight in or have to stop at the end of the board - making diving in a new move.

2. The player who is last to move one of the divers into the pool is the loser.

DIVING BOARD - Splash!!

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Rules:

This is a game for two people, but could be played by three.

The circle in the middle is the swimming pool and the 5 rectangles are the diving boards.

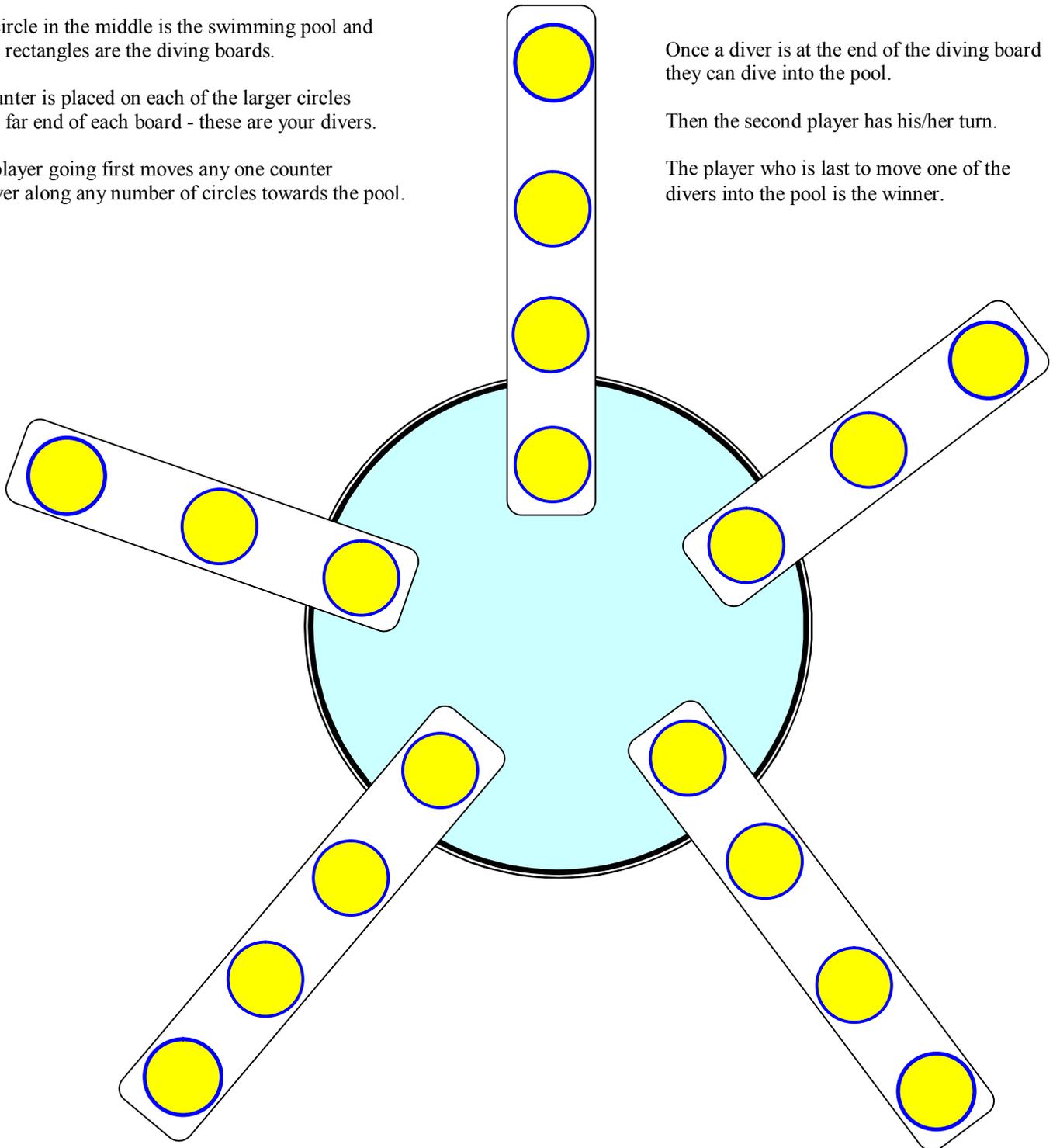
A counter is placed on each of the larger circles at the far end of each board - these are your divers.

The player going first moves any one counter or diver along any number of circles towards the pool.

Once a diver is at the end of the diving board they can dive into the pool.

Then the second player has his/her turn.

The player who is last to move one of the divers into the pool is the winner.



Mathematics Games

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HEX

Equipment:

Two sets of coloured counters.

A playing board

Rules:

This is a game for two people.

Each player has a set of counters - at least 12.

The aim of the game is to connect their sides of the board with a continuous line of counters.

The player going first places a counter on one of the hexagons.

The second player then places one of his/her counters on a hexagon. This continues until a line has been made across the board. One player must win!

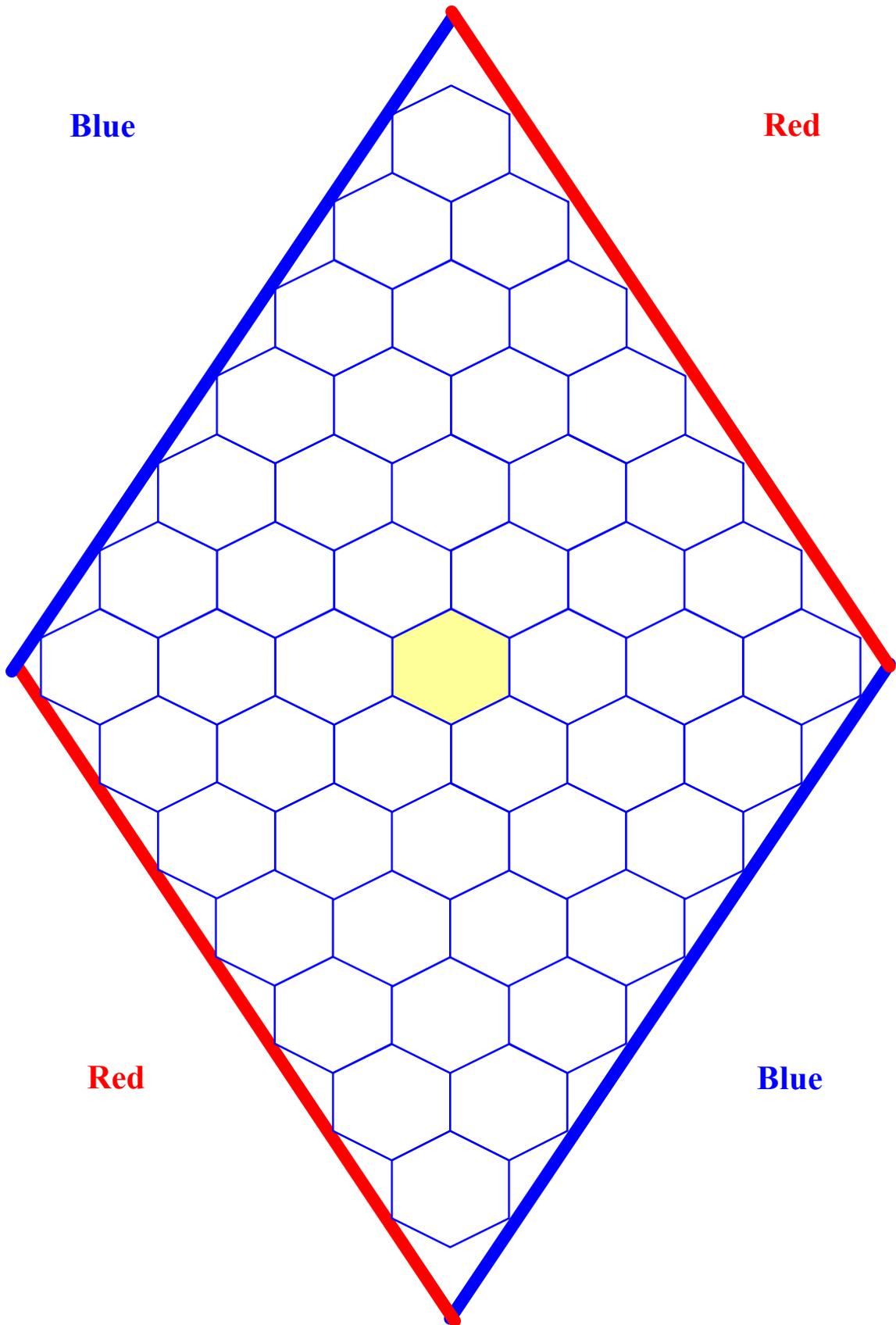
Optional rules:

The player going first is not allowed to take the middle hexagon.

On the next page you will find a board which can be printed out onto card. It is a good idea to cut out and either laminate or 'sticky back' this board.

HEX

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Mathematics Games

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Make 42!

Equipment:

A set of 10 - 18 cards

A playing square

Rules:

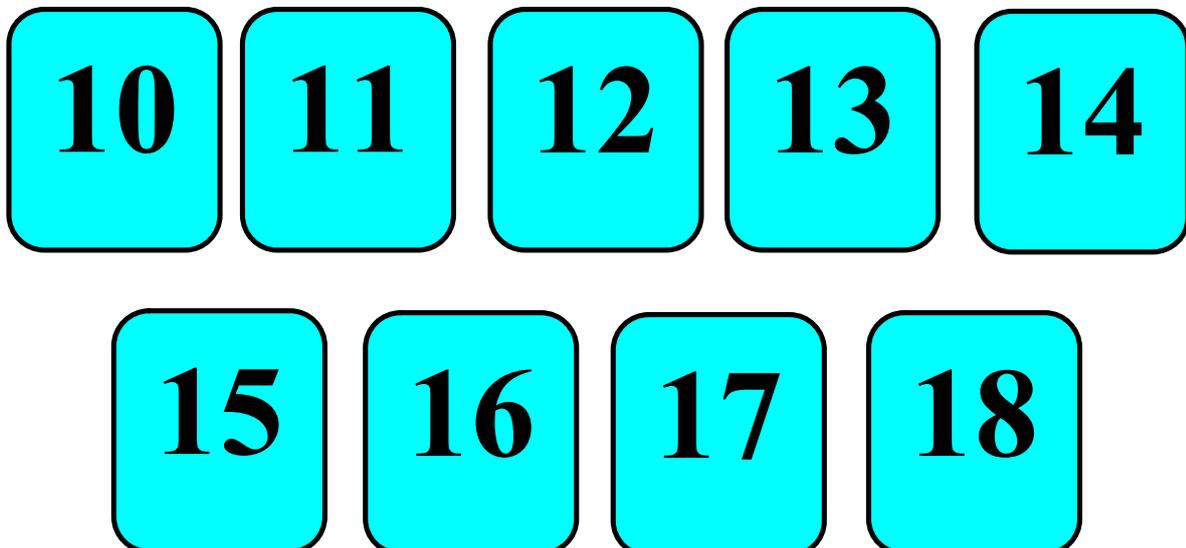
This is a game for two people using the idea of a magic square.

The aim of the game is to make a line of three come to 42.

The line can be across, down or diagonal.

The cards are shuffled and placed face down. Player one takes a card and places it on one of the squares. Player two follows this.

A set of 10 - 18 cards are found below. They can be cut out and laminated, or printed on card.



Make 42

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Rules:

This is a game for two people.
The aim of the game is to make a line of three come to 42.
The line can be across, down or diagonal.
The cards are shuffled and placed face down.
Player one takes a card and places it on one of the squares. Player two follows this.
The player who puts a card down which makes 42 is the winner.
If neither player can make 42 the game is drawn.

If I'm lucky I can win if I go first.



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NEVER TOUCH!

Equipment:

2 pencils

A set of playing squares

Rules:

This is a game for two people using noughts and crosses on a square board.

The player going first places a cross in one square.

Then the second player has his/her turn, placing a nought in a square.

This continues, but no two crosses are allowed next to each other with a common edge. The same rule applies for the noughts. (Diagonal touching is allowed.)

x	0		
	x	0	
	0		
	x		

x	0		
0	x	0	
x	0		x
0	x		

x	0		x
0	x	0	
x	0		x
0	x		0

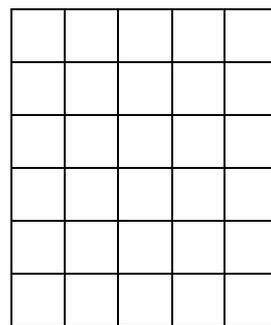
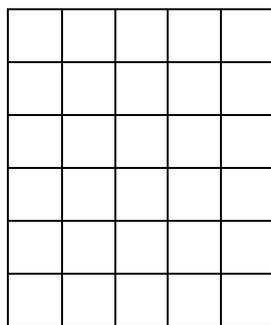
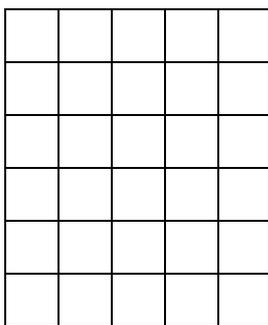
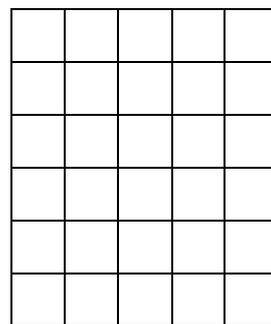
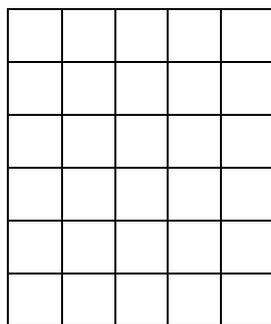
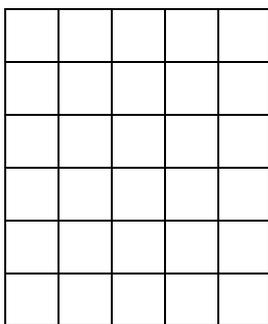
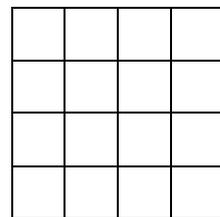
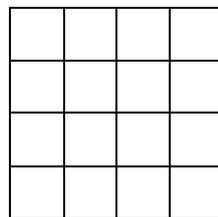
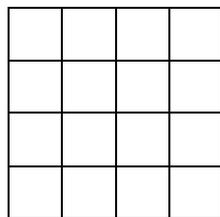
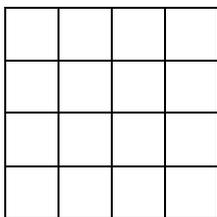
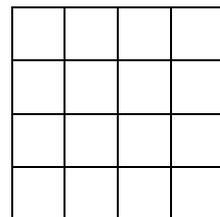
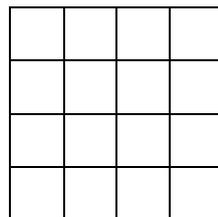
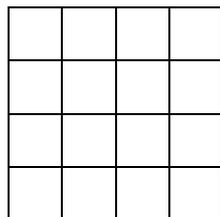
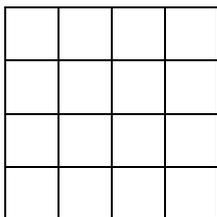
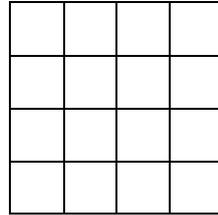
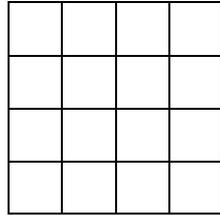
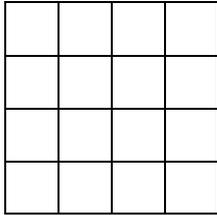
The winner is the player who makes the last correct mark on the square, forcing the other player to put a cross (or nought) next to one that has already been drawn. In the above game 0 wins because x would have to place his next x in a square already next to a cross.

On the next page you will find a set of squares. Begin with the small square and work up!

NEVER TOUCH!

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Now, is it better to go first or second?



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PIG!



Equipment:

A die

A scoring sheet is useful

Rules:

This is a game for two or more people, although usually played in pairs. It is good practice for addition skills up to 50, especially adding three or more small numbers.

The first player rolls the die as many times as he/she likes, adding up the total as he/she goes.

If, however, a 1 is thrown, all the score for that round is lost.

The player may stop at any time and put his/her score in the bank - that banked score can not be lost.

When a score has been banked the die is passed to the next player who has his/her turn.

The winner is the first player to reach 50 or more.

Options: raise the winning score to 100 or more.

Use a 0-9 die with two losing options.

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SPIRALS

Equipment:

4 counters

A playing board.

Rules:

This is a two player game.

One counter is placed on each of the four stars.

Player one starts by moving any one counter out towards the home base, going round the spiral. The counter can be moved on one, two or three spots.

Counters cannot land on top of each other. They cannot jump over each other and they cannot go backwards.

The winner is the player who puts the last counter into the home base.

On the next page you will find a board which can be printed out onto card.

SPIRAL

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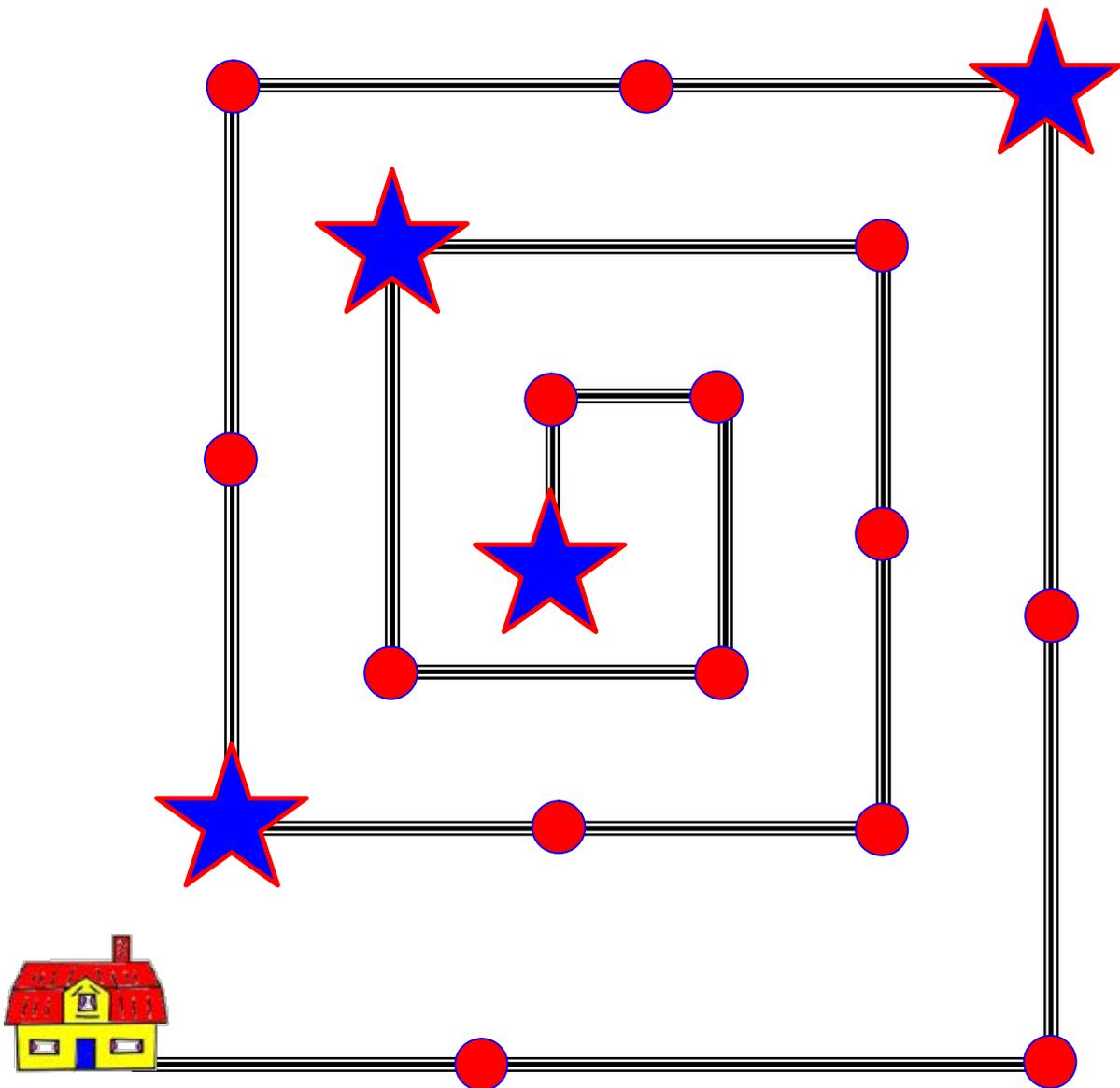
Put 4 counters on the stars, then move any counter.

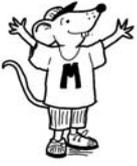
Counters cannot pass or jump each other.



Can move one, two or three spots. Stars count as spots!

The winner is the player who slides off the last counter.





CRISS CROSS THREE - SUBTRACTION 1



Equipment:

Red and blue counters (or similar), calculator

How to play:

A game for two players.

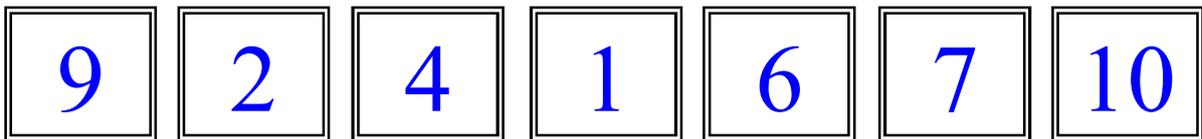
Player 1 chooses two numbers from the list below.

The player types in the larger number on the calculator. Then subtracts the smaller number on the calculator. If the answer is on the grid place a counter on that square.

Player 2 chooses two numbers and types in the larger number and then subtracts the smaller number on a calculator. If the answer is on the grid place a blue counter on that square.

Once a number has been covered it can not be covered again.

The winner is the first person to put three counters in a row, across, down or diagonally.



6	2	1
7	5	8
3	9	4



CRISS CROSS THREE - SUBTRACTION 2



Equipment:

Red and blue counters (or similar), calculator

How to play:

A game for two players.

Player 1 chooses two numbers from the list below.

The player types in the larger number on the calculator. Then subtracts the smaller number on the calculator. If the answer is on the grid place a counter on that square.

Player 2 chooses two numbers and types in the larger number and then subtracts the smaller number on a calculator. If the answer is on the grid place a blue counter on that square.

Once a number has been covered it can not be covered again.

The winner is the first person to put three counters in a row, across, down or diagonally.

10	3	15	7	20	11	8
----	---	----	---	----	----	---

13	8	10
9	17	5
4	12	7



CRISS CROSS FOUR - SUBTRACTION 3



Equipment: Red and blue counters (or similar), calculator

How to play:

A game for two players.

Player 1 chooses two numbers from the list below.

The player types in the larger number on the calculator. Then subtracts the smaller number on the calculator. If the answer is on the grid place a counter on that square.

Player 2 chooses two numbers and types in the larger number and then subtracts the smaller number on a calculator. If the answer is on the grid place a blue counter on that square.

Once a number has been covered it can not be covered again.

The winner is the first person to put three counters in a row, across, down or diagonally.

28	13	50	5	40	29	17
----	----	----	---	----	----	----

27	11	15	33
21	16	4	24
8	22	10	35
45	12	23	37



CRISS CROSS FOUR - SUBTRACTION 4



Equipment: Red and blue counters (or similar), calculator

How to play:

A game for two players.

Player 1 chooses two numbers from the list below.

The player types in the larger number on the calculator. Then subtracts the smaller number on the calculator. If the answer is on the grid place a counter on that square.

Player 2 chooses two numbers and types in the larger number and then subtracts the smaller number on a calculator. If the answer is on the grid place a blue counter on that square.

Once a number has been covered it can not be covered again.

The winner is the first person to put three counters in a row, across, down or diagonally.

82	41	79	35	56	27	60
----	----	----	----	----	----	----

29	19	52	38
33	41	15	55
22	14	44	26
47	23	25	21



CRISS CROSS FOUR - SUBTRACTION 5



Equipment: Red and blue counters (or similar), calculator

How to play:

A game for two players.

Player 1 chooses two numbers from the list below.

The player types in the larger number on the calculator. Then subtracts the smaller number on the calculator. If the answer is on the grid place a counter on that square.

Player 2 chooses two numbers and types in the larger number and then subtracts the smaller number on a calculator. If the answer is on the grid place a blue counter on that square.

Once a number has been covered it can not be covered again.

The winner is the first person to put three counters in a row, across, down or diagonally.

136	305	523	708	664	419	251
-----	-----	-----	-----	-----	-----	-----

572	185	169	245
387	289	413	272
141	457	283	403
359	528	168	218

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THIRTY UP!

Equipment:

9 cards, numbered 2 to 18 even only

a 3 x 3 square playing board

Rules:

This is a game for two people based on the 'magic square' idea.

The aim is to make a line of three cards which totals 30.

Shuffle the cards and place face down on the table.

The player going first takes the top card and places it on the board.

Then the second player has his/her turn.

The first player to make a straight line of 30 in any direction (including diagonals) is the winner.

On the next page you will find a board which can be printed out onto card, followed by a set of 2-18 cards. It is a good idea to cut out and either laminate or 'sticky back' these cards to make them last longer.

THIRTY UP!

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Now, three numbers
that make 30 - that's
2, 10 and 18 or

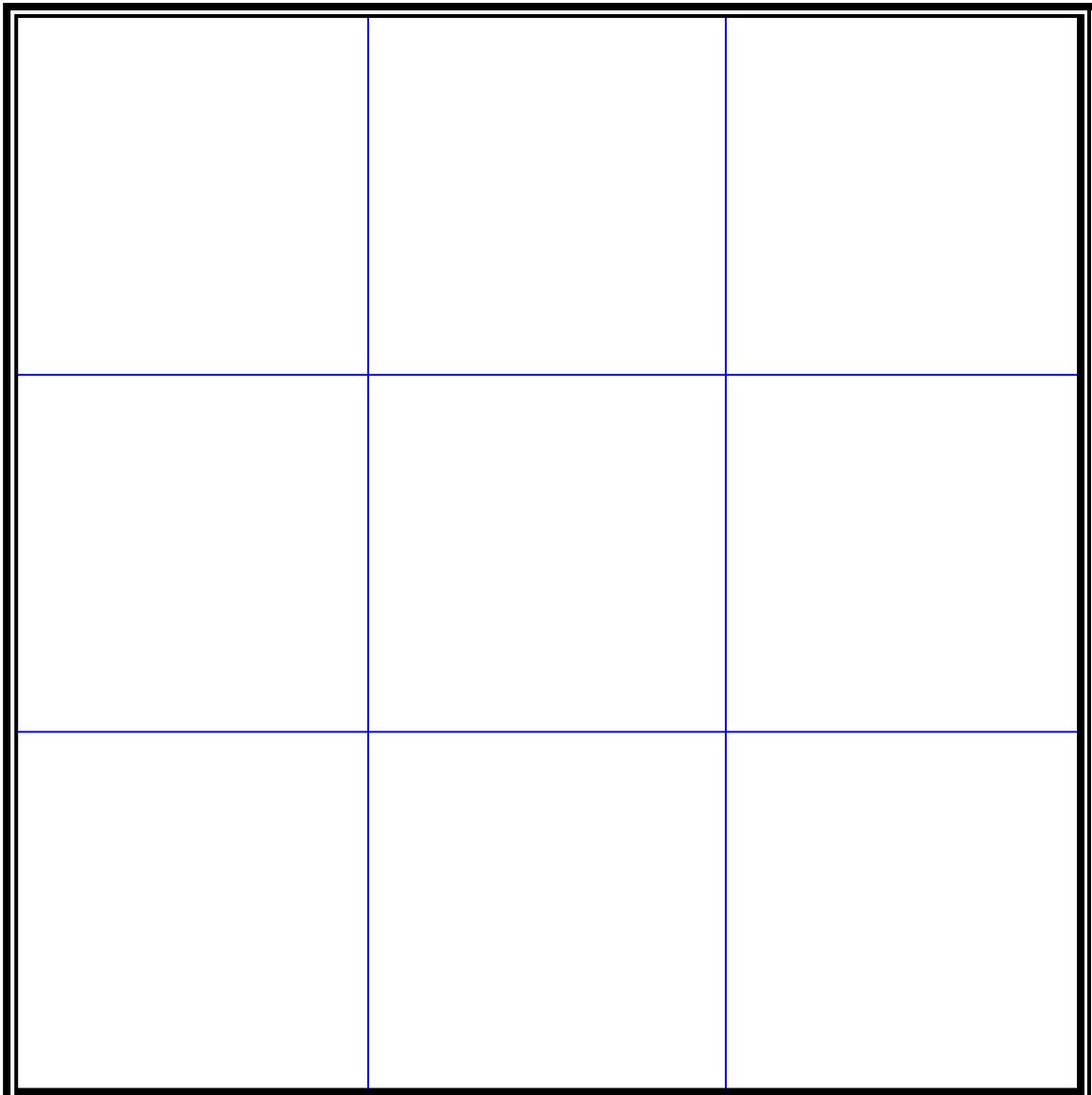
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THIRTY UP!

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2	4	6
8	10	12
14	16	18

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SEVEN LINE

Equipment:

7 counters

A playing board

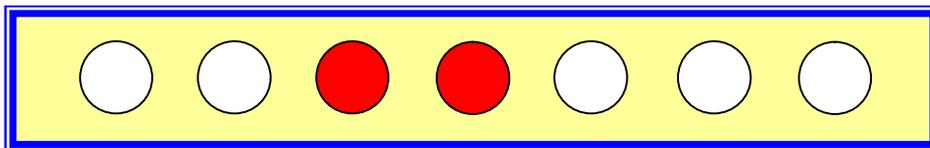
Rules:

This is a game for two people using counters.

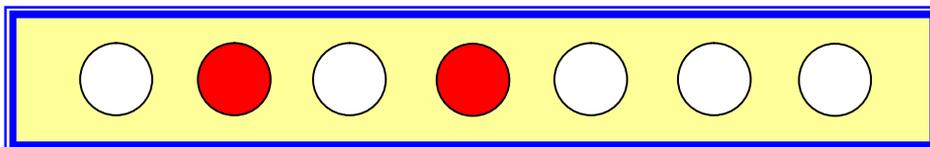
The player going first places one or two counters on the line (in the circles).

If two counters are placed they must be next to each other.

Permitted:



Not permitted:



This continues until all the counters have been placed.

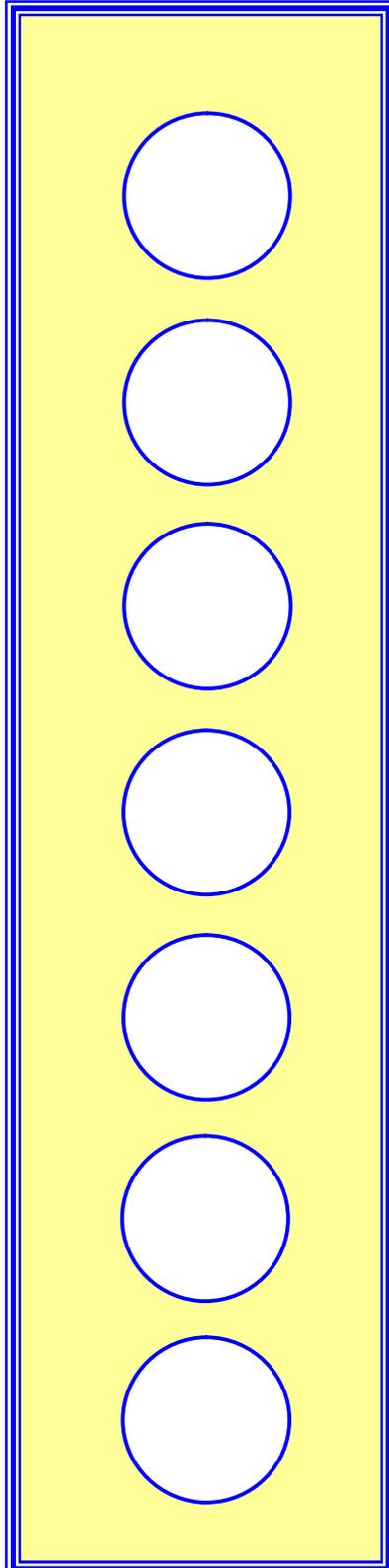
The winner is the player who places the last counter or counters on the line to complete it.

On the next page you will find a playing board.

SEVEN LINE

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Remember:
one or two
counters at a
time.
If two
counters,
they have to
be next to
each other.



Now, the usual
question - is it better
to go first or second?



The winner
is the player
who puts
down the
last counter.

Mathematics Games

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THIRTY UP!

Equipment:

9 cards, numbered 2 to 18 even only

a 3 x 3 square playing board

Rules:

This is a game for two people based on the 'magic square' idea.

The aim is to make a line of three cards which totals 30.

Shuffle the cards and place face down on the table.

The player going first takes the top card and places it on the board.

Then the second player has his/her turn.

The first player to make a straight line of 30 in any direction (including diagonals) is the winner.

On the next page you will find a board which can be printed out onto card, followed by a set of 2-18 cards. It is a good idea to cut out and either laminate or 'sticky back' these cards to make them last longer.

THIRTY UP!

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that make 30 - that's
2, 10 and 18 or

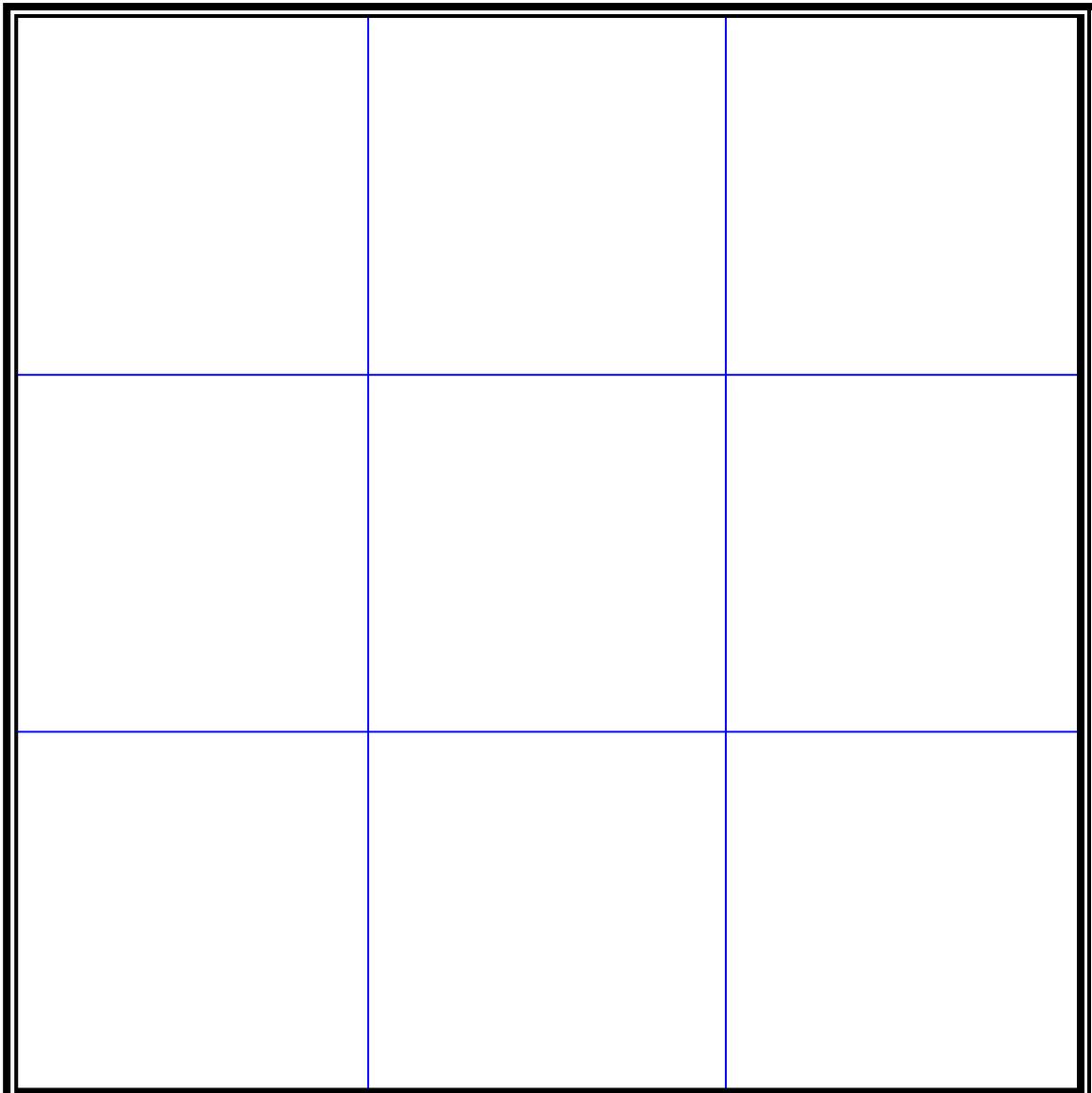
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THIRTY UP!

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2	4	6
8	10	12
14	16	18