

## Benefits of Maths Games

Identifying Strategy

Decision Making

Problem Solving

Communication Skills

Flexibility of Thinking

Using Appropriate Mathematical Vocabulary

Positive Attitudes toward Maths

## Encouraging Higher Order Thinking Skills

Applying and Problem Solving

Integrating and Connecting

Communicating and Expressing

Reasoning

## The Benefits of Playing 'Maths Games'.

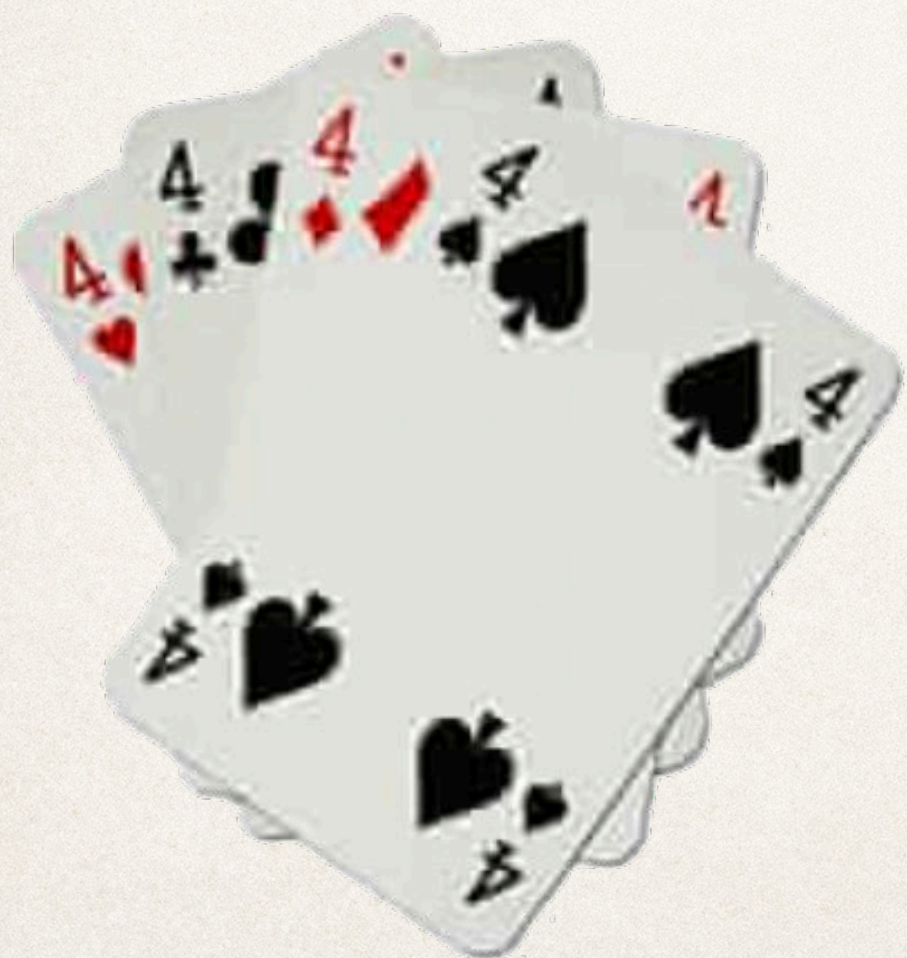


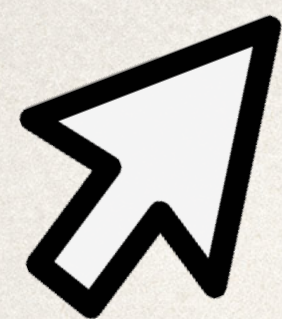
“Problem-solving skills can be developed in various ways, for example, through constructive play, games, puzzles, role-play, classroom situations, robotics, coding, etc. In response, the new primary mathematics curriculum could provide a repository of mathematics problems to encourage teachers to move away from textbooks and to engage in richer problem-solving activities ...”

Background Paper and Brief for the Development of a New Primary Mathematics Curriculum, NCCA, 2016



1. Pen and Paper Strategy games from [www.whatwedoallday.com](http://www.whatwedoallday.com)
2. Pen and Paper Strategy games from [www.nrich.maths.org](http://www.nrich.maths.org)
3. Strimko puzzles - Some can be downloaded at [http://strimko.com/download/StrimkoPack1\\_4x4.pdf](http://strimko.com/download/StrimkoPack1_4x4.pdf)
4. Two examples from [www.0hn0.com](http://www.0hn0.com) and [www.0hh1.com](http://www.0hh1.com) - internet based





[www.whatwedoallday.com](http://www.whatwedoallday.com)

- ❖ Click on 'Games'
- ❖ Click on 'Traditional Games'

START HERE HOME BOOKS GAMES KIDS ACTIVITIES PARENTING

WHAT DO WE DO ALL DAY?  
READ • LEARN • PLAY • LIVE

BEST FANTASY AND SCI-FI GRAPHIC NOVELS FOR KIDS  
OCTOBER 12, 2020

FANTASY GRAPHIC NOVELS FOR KIDS  
a whatdowedoallday.com book list

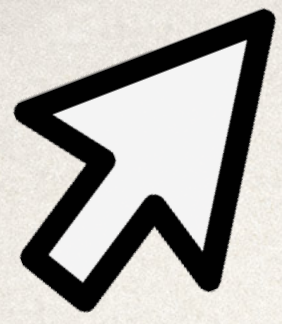
ALTERNATIVES TO TRICK OR TREATING FOR A FUN AND SAFE HALLOWEEN  
OCTOBER 6, 2020

have a safe Halloween

RECORDED WITH SCREENCAST-O-MATIC

.....Another example - 'Tapatan' a '3 in a row' game from The Philippines.

tired of tic-tac-toe?



[www.nrich.maths.org](http://www.nrich.maths.org)

- ❖ Primary Students
- ❖ Games

Primary Students Secondary Students Early Years Primary Teachers Secondary Teachers

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# NRICH

## Maths at Home

### Primary and EY Teachers

Free curriculum-linked resources to develop mathematical reasoning, and problem-solving skills

Find more rich tasks, with teacher support, at the [Primary](#) and [EY](#) teacher homepages

### Secondary Teachers

Free curriculum-linked resources to develop mathematical reasoning, and problem-solving skills

You can find more rich tasks, with accompanying teacher support, at the [Secondary Teacher Homepage](#)

### Students

Our latest [Primary](#) and [Secondary](#) features challenge you to think flexibly

More exciting activities can be found on the [Primary](#) (age 5-11) and [Secondary](#) (age 11-18) student homepages

### Events and Webinars

### Your Solutions

### Tweets by @nrichmaths

NRICH maths Retweeted

Year 1 and 2 - Elm

RECORDED WITH SCREENCAST-O-MATIC

# - 'Counters'

## Counters

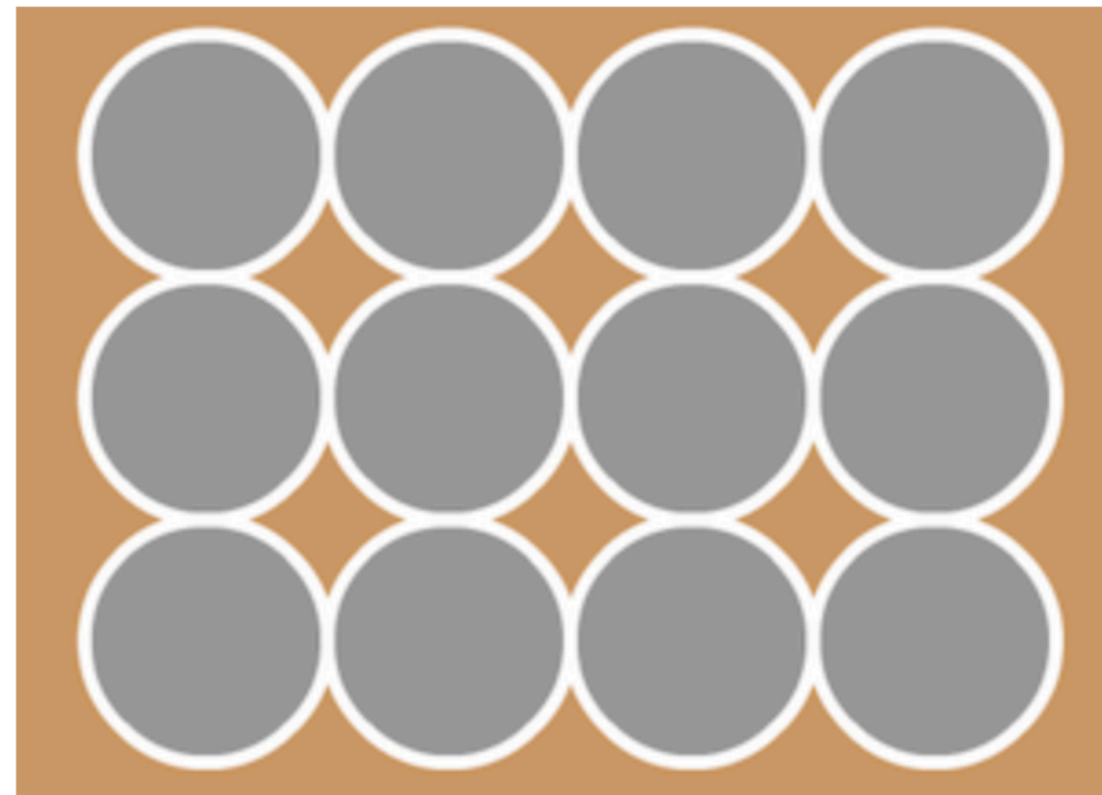
Age 7 to 11 ★★★

To play this game, you'll need a friend and twelve counters.

The aim of the game is to be the player who takes the last counter or counters.

### How to play:

Lay out the counters in an array like this:



The first player chooses a counter and removes it from the array, and also removes all the counters that touch it.

The second player also chooses a counter and removes it from the array, and also removes all the counters that touch it.

Play continues like this with players taking it in turns, until one of the players removes the last counter (or counters). That player is the winner!

# Another Example - 'Sprouts'

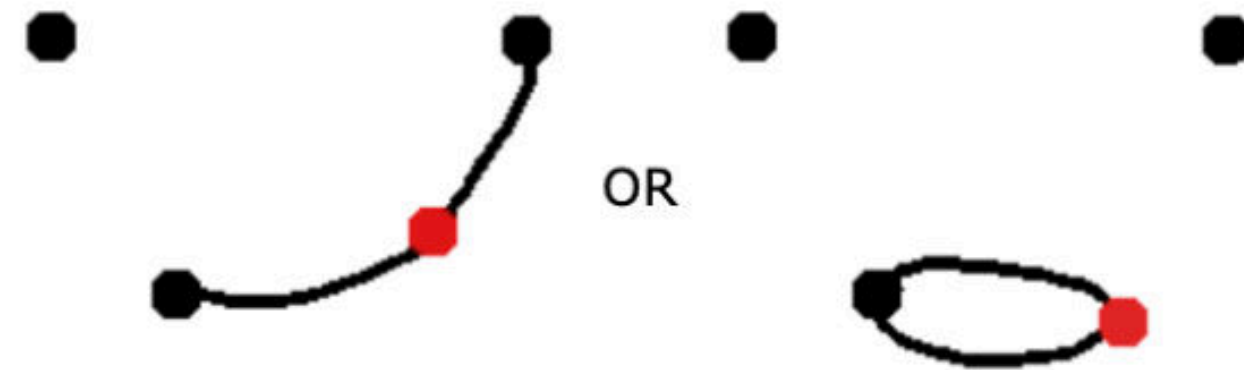
## Sprouts

Age 7 to 18 ★★

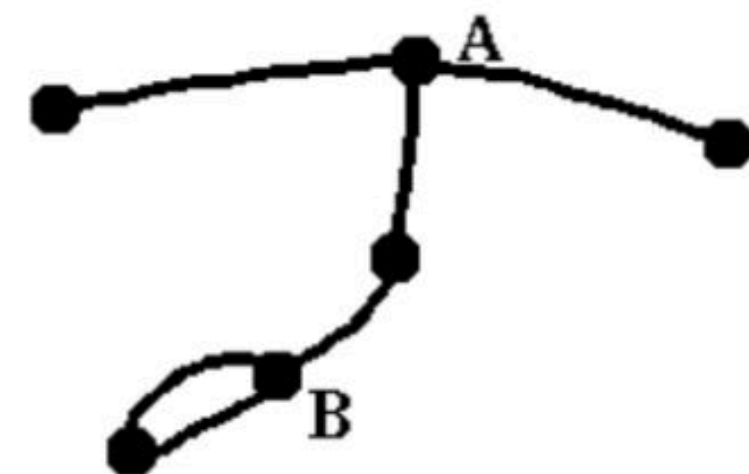
This is a game for two players. All you need is paper and a pencil. The game starts by drawing three dots.



The first player has a turn by joining two of the dots and marking a new dot in the middle of the line. Or the line may start and end on the same dot.



When drawing a line, it cannot cross another line. (This is important to remember!) A dot cannot have more than three lines branching to or from it. For example, in the game below, dots A and B cannot be used any more because they already have three lines.







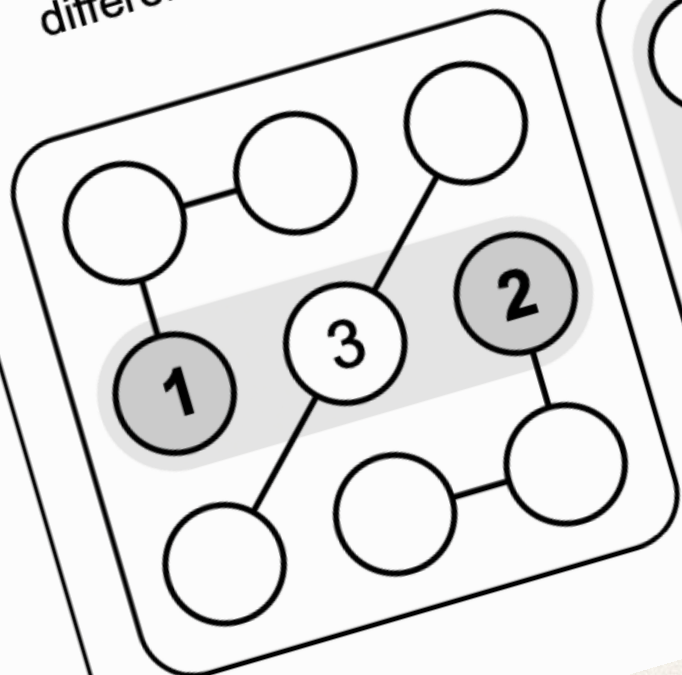
# Strimko

[http://strimko.com/download/StrimkoPack1\\_4x4.pdf](http://strimko.com/download/StrimkoPack1_4x4.pdf)

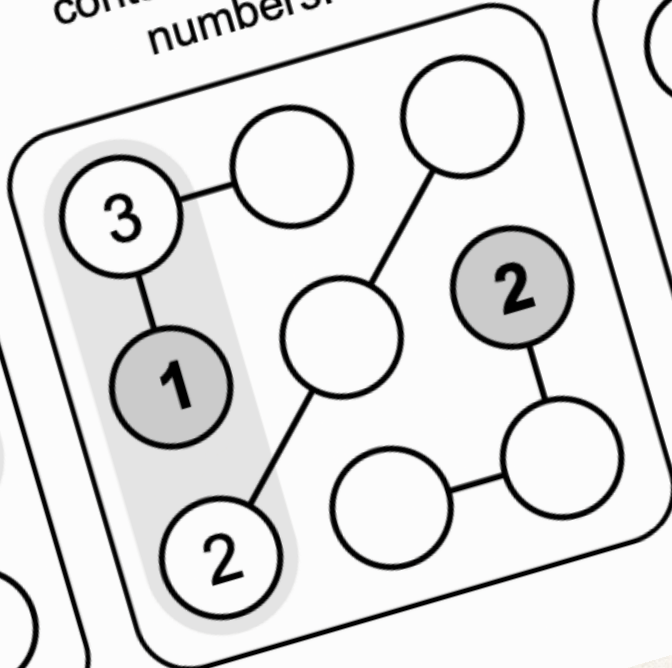
## RULES

The object of the puzzle is to fully fill in the given grid with missing numbers observing three simple rules. You have numbers 1 through 3 for a 3 x 3 grid; 1 through 4 for a 4 x 4 grid; 1 through 5 for a 5 x 5 grid; 1 through 6 for a 6 x 6 grid; 1 through 7 for a 7 x 7 grid; and so on.

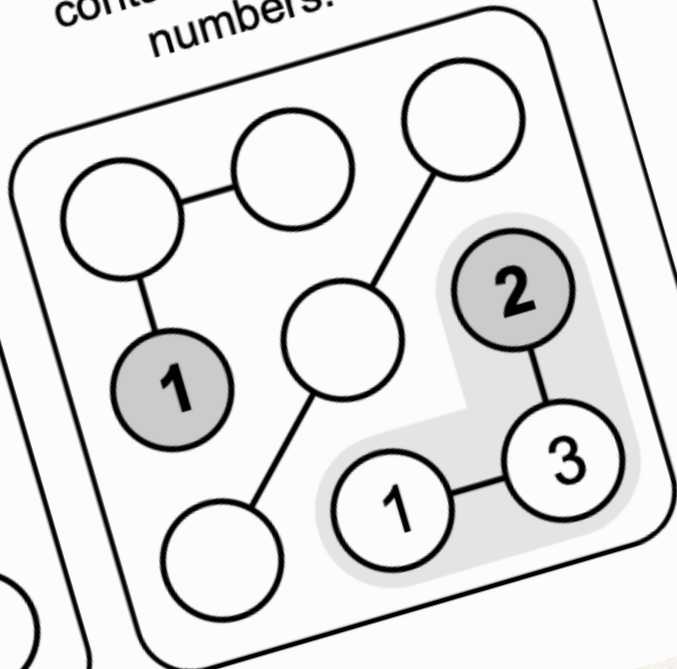
**Rule #1**  
Each row must contain different numbers.



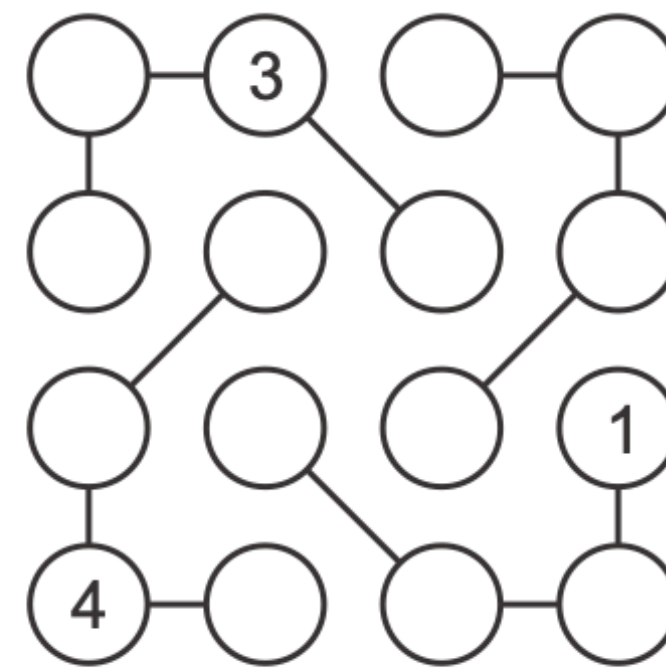
**Rule #2**  
Each column must contain different numbers.



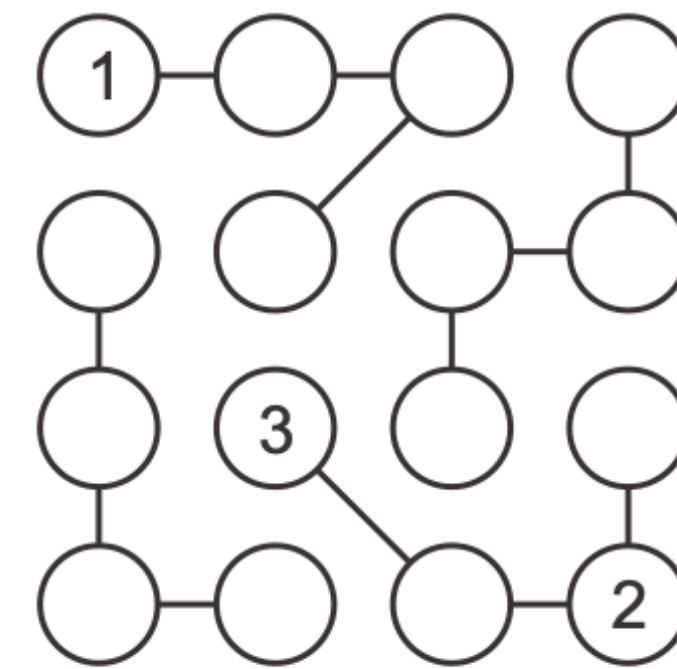
**Rule #3**  
Each stream must contain different numbers.



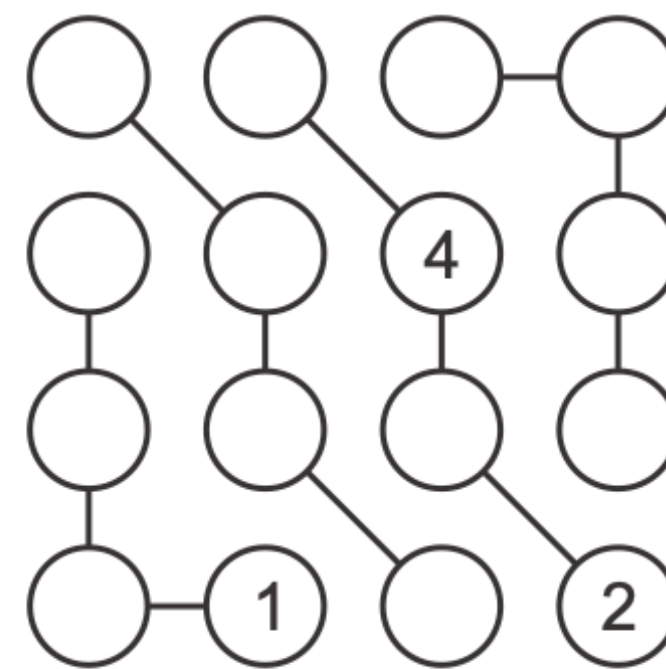
Puzzle 1



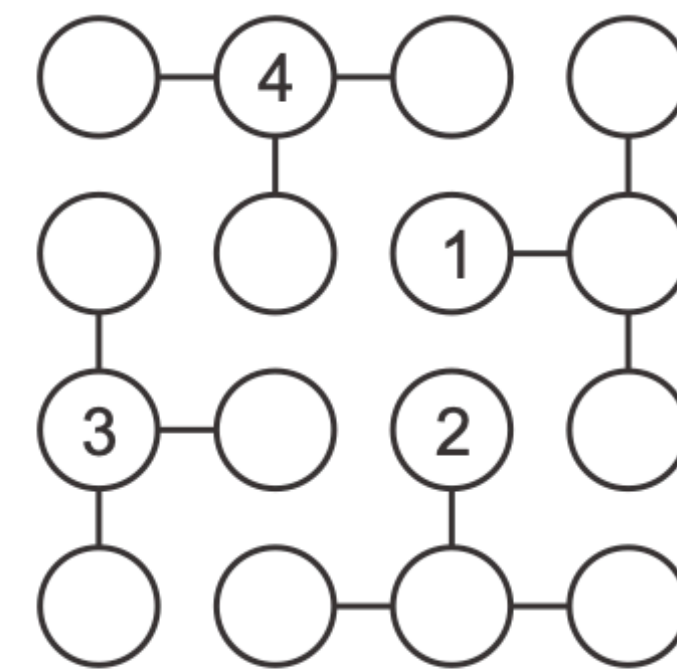
Puzzle 2

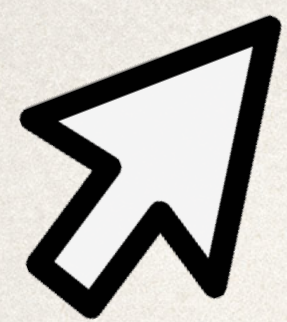


Puzzle 3

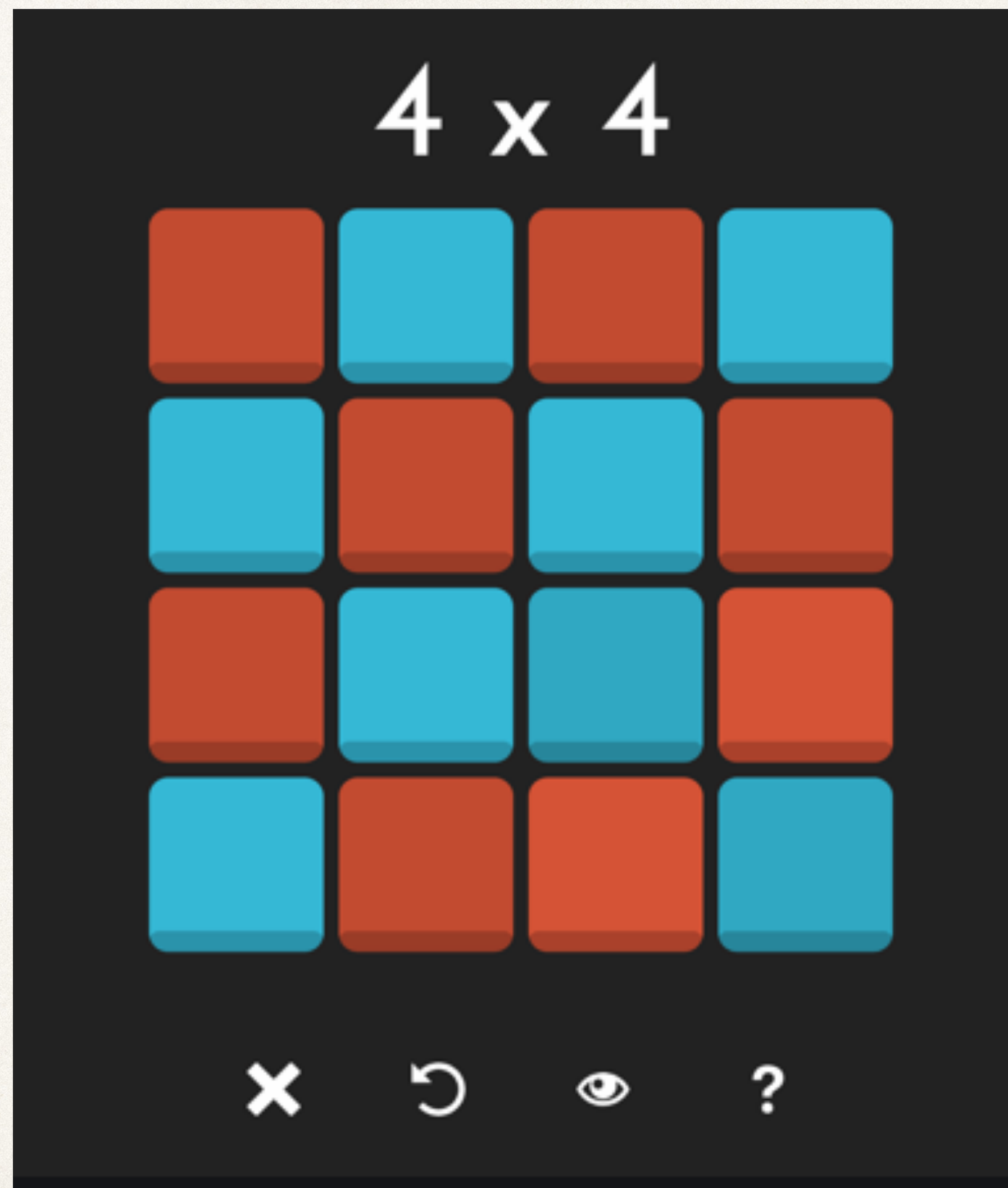


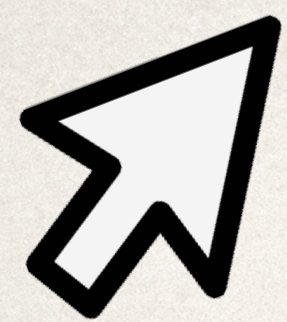
Puzzle 4





# [0hh1.com](http://0hh1.com) - an interactive 'logic' game





....and it's companion .. [0hn0.com](http://0hn0.com)

# Awesome!

