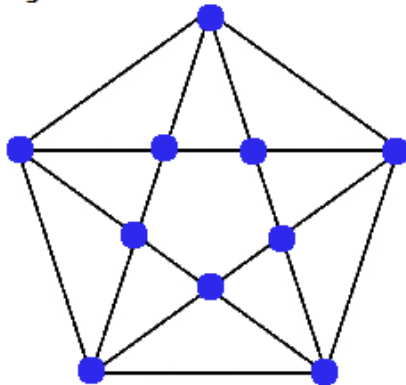


Five more Nrich Key Stage 2 maths games to explore

Just put the name of the game in the search bar on the Nrich home page. This should take you straight to the game

Pentanim

Age 7 to 16 ★★



Rules of the Game

Place one counter on each spot. Players, in turn, remove one counter or two adjacent counters; ('adjacent' means that they are connected by a line and there are no other counters in between). The winner is the player who picks up the last counter or the last two counters.

Factors and Multiples Game

Age 7 to 16 ★

This is a game for two players.

The first player chooses a positive even number that is less than 50, and crosses it out on the grid.

The second player chooses a number to cross out. The number must be a factor or multiple of the first number.

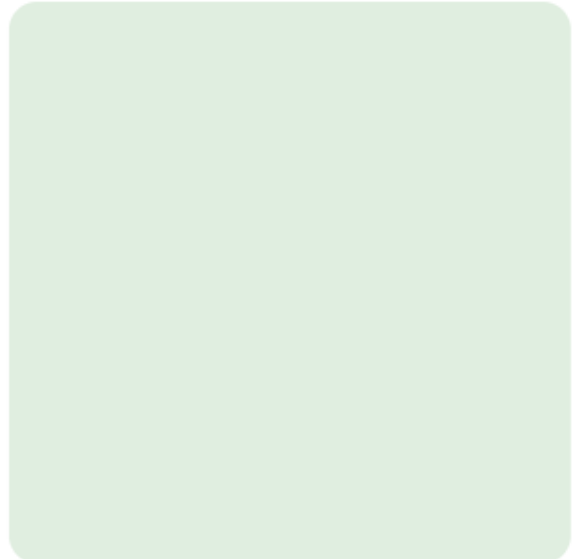
Players continue to take it in turns to cross out numbers, at each stage choosing a number that is a factor or multiple of the number just crossed out by the other player.

The first person who is unable to cross out a number loses.

Here is an interactive version of the game in which you drag the numbers from the left hand grid and drop them on the right hand grid. Alternatively, click on a number in the left hand grid and it will transport to the earliest empty location in the right hand grid. You can rearrange the numbers in the right hand grid by dragging and dropping them in position. The integer in the top right hand corner grows with the number of factors/multiples you have in a row.

Tablet version Install in home page

dragged to reorder them. Aim to make the longest possible chain where each number is a factor or a multiple of its predecessor. Each number may be used once only. Chains are bracketed in green. Blue numbers are not part of a chain



Alternatively, you can print out some [1-100 square grids](#).

Four-digit Targets

Age 7 to 11 ★

You have two sets of the digits from 0 to 9.

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

The idea is to arrange these digits in the five boxes to make four-digit numbers as close to the target number as possible. You may use each digit once only.

<input type="text"/>	largest odd number
<input type="text"/>	largest even number
<input type="text"/>	largest multiple of 3
<input type="text"/>	smallest multiple of 5
<input type="text"/>	number closest to 5000

Play against an opponent. Arrange your 20 digits in the 20 available spaces. Four for each number. Reveal your choices to your opponent. Whoever wins each round gets 5 points? If it's a draw, then award 5 points to both players. Whoever has the largest total after all 6 round wins.

You might like to use this interactive to try out some of your ideas:

Can you put the twenty digits into the five boxes to make the four-digit numbers as close to each target as possible?

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

--	--	--	--

largest odd number

--	--	--	--

largest even number

--	--	--	--

largest multiple of 3

--	--	--	--

smallest multiple of 5

--	--	--	--

number closest to 5000

Can you find other ways of doing it?

Stop or Dare

Age 7 to 16 ★



A game for two or three players. You will just need a pack of cards.

Shuffle the pack and place it face down. Set a target score for the game, for example 100.

The first player turns over the top card and continues turning over cards, adding together the value of each card, until they decide to stop. Jacks score 11 and Queens score 12.

When the player stops, the total is recorded as their score.

However, **if an Ace or a King is turned over, no points are scored at all**, and the turn is finished.

The second player then starts turning over cards in the same way.

Players take turns until someone reaches the target score. This player is the winner.

If the cards are all turned over before the target is reached, just reshuffle the pack and continue.

Play the game a few times.

Can you develop any strategies to increase your chance of winning?

Now decide on some new rules and play the game again.

*You could change which cards (and how many cards) end the turn, or introduce a card that sets your **total** score back to zero.*

Once you have played your variant a few times, decide whether the same strategies are best.



Seeing Squares

Age 5 to 11 ★

This game can be played against a friend or against the computer.

Players take it in turns to click on a dot on the grid - first player's dots will be blue and the second player's (or computer's) will be red.

If you choose to play with a friend rather than the computer click "2 player", (click "1 player " if you choose to play the computer).

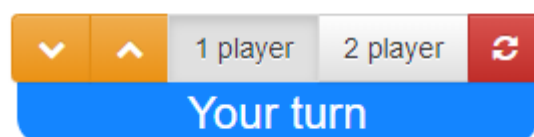
The winner is the first to have four dots that are shown joined by straight lines to form a square.

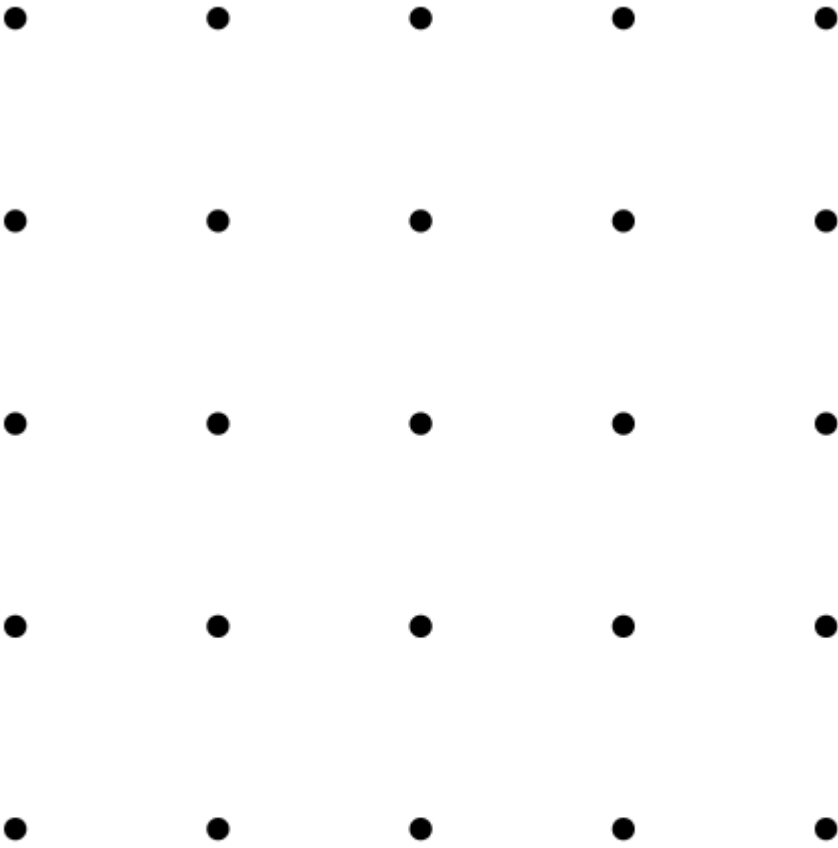
Squares can be any size, anywhere and can be tilted.

For a further challenge, why not increase the size of the grid using the arrow buttons?

If you are not using the interactive game, you may like to print off some [dotty paper](#).

Square it!





Claim all 4 corners of a square to win

Can blue always win?