

My square, not yours!

Children draw a succession of perpendicular and parallel lines to create squares.

Skills practised:

- Identifying and drawing perpendicular lines
- Identifying and drawing parallel lines

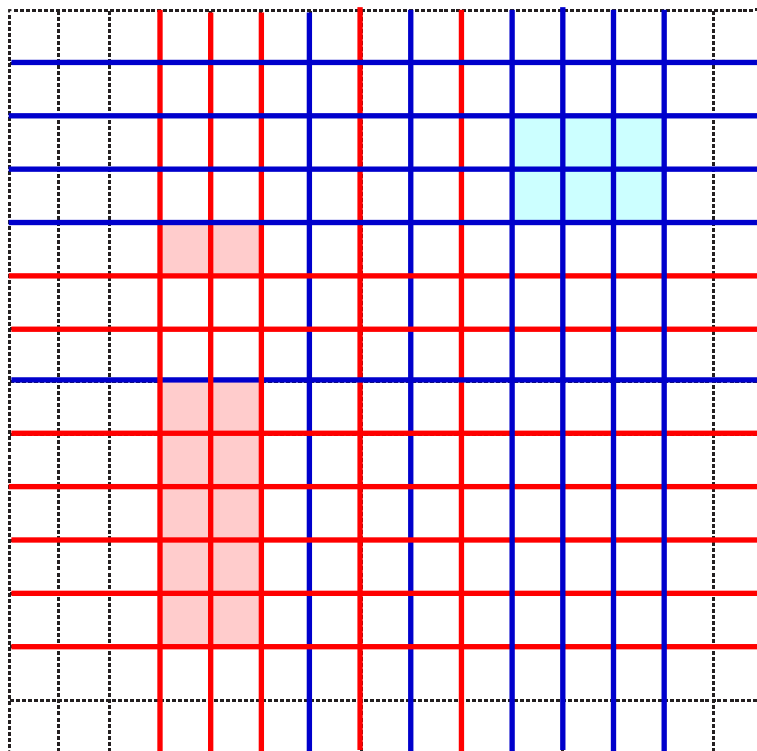
Conjecture: *It is possible to create squares with all four lines drawn in one colour by planning ahead!*

What to do:

Children play the game in pairs. You will need squared paper, the squares can be small – they do not need to be centimetres, and a different coloured pen or pencil for each child in the pair.

1. Take a sheet of squared paper and start in the middle of the page. The first player draws a long line.
2. The second player draws another long line in a different colour. This can be parallel with the line the first person drew or perpendicular to it. If it is parallel, it must be no more than one square along on either side.
3. Keep taking turns until you have each drawn 13 lines!
Look at your drawing.
4. Each person may shade in any squares which have all four sides drawn in their colour.
5. Count your squares. The person with the most squares is the winner.
Is it possible to plan ahead, so that you will definitely get some squares of your own?

Play again and this time, try to plan ahead...



In this game, red won!

Aims:

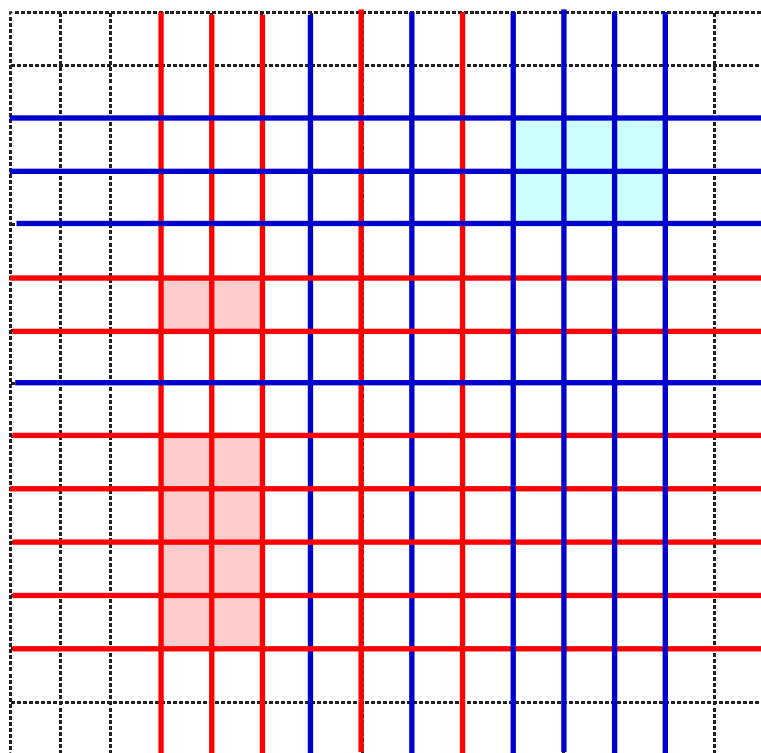
- To plan ahead, making predictions and testing this out

Minimum number of calculations expected

N/A

My square, not yours!

1. Take a sheet of squared paper and start in the middle of the page. One of you draws a long line.
2. The second player draws another long line in a different colour. This can be parallel with the line the first person drew or perpendicular to it. If it is parallel, it must be no more than one square away from the other line, on either side.
3. Keep taking turns until you have each drawn 13 lines!
Look at your drawing.
4. Shade in any squares which have all four sides drawn in your colour. Your partner does the same in their colour.
5. Count your squares.
The person with the most squares is the winner.
Is it possible to plan ahead, so that you will definitely get some squares of your own?
Play again and this time, try to plan ahead...



In this game, red won!