

Where's the Rectangle?

- Strategy
- Coordinates
- Area

MATERIALS

- 8 x 8 Coordinate grid for each player (can be re-used if covered with plastic)
- Pencils

Once students become familiar with coordinates, they can use this knowledge in strategy games such as "Where's the Rectangle?" The strategy here depends on recognizing the different rectangles that can be drawn with a fixed area.

PEOPLE: 3-5

ACTION:

Remind students of the coordinate names for points. Review concept of area as "squares inside" a rectangle.

Divide into groups of 3-5 students. Each person needs a blank grid card and a pencil.

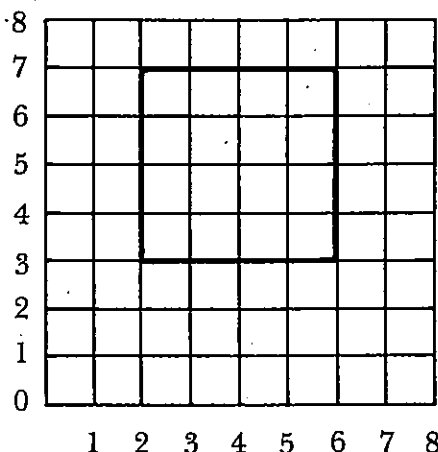
One person draws a rectangle on her grid without showing the other players. Its sides must coincide with grid lines. See the example below. She then tells the rest of the group the area of her rectangle.

Other players try to locate the four corners of the hidden rectangle. Each player in turn guesses a coordinate point. The person hiding the rectangle tells whether that point is on, in, or out of her rectangle. These clues are recorded.

Play continues until the corner points are identified. The number of questions needed is the group score.

Let someone else hide a rectangle. This time the group tries to reduce the number of guesses required to identify the four corners.

Initial Clue: The area is 16.



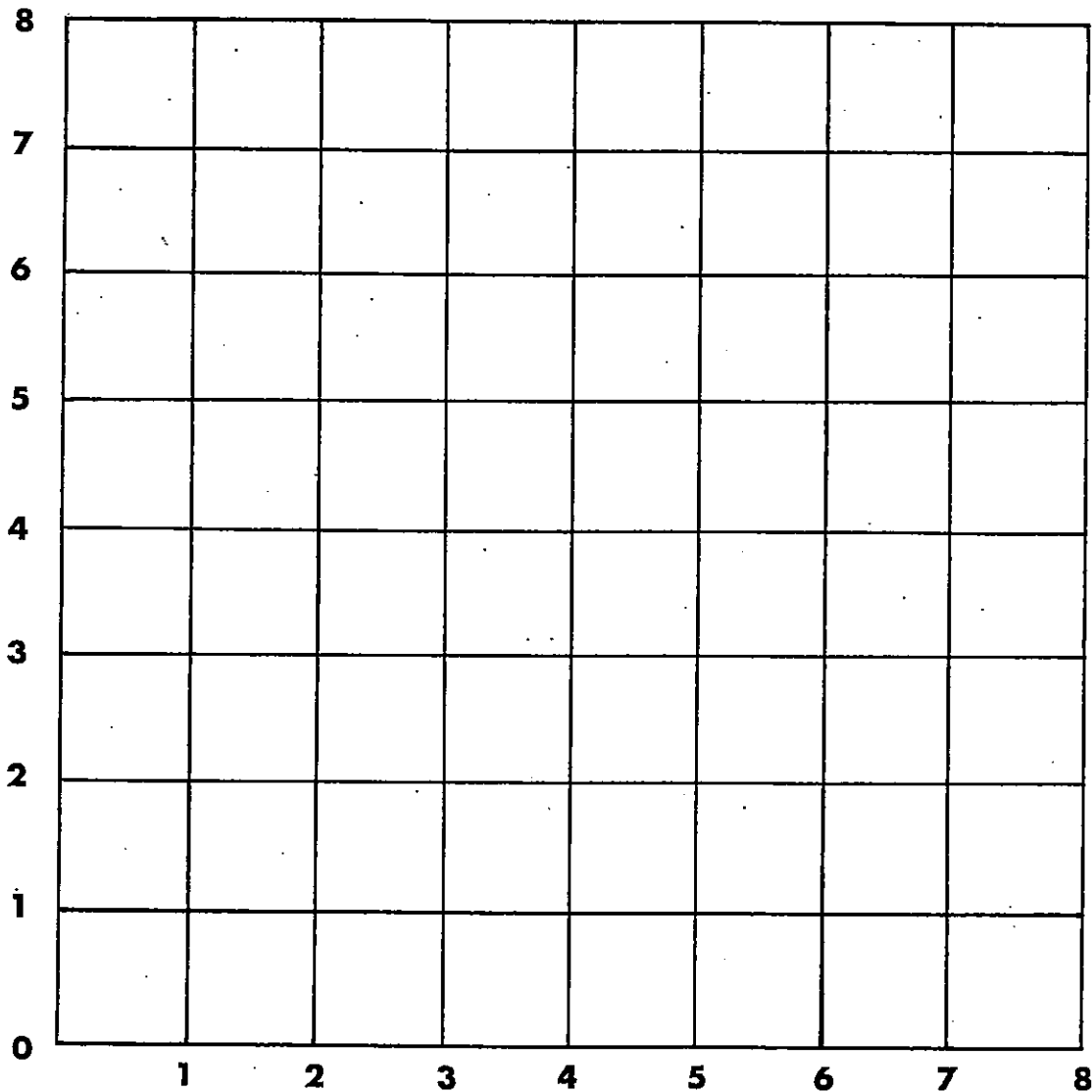
Guess	Response
(5,6)	in
(7,2)	out
(6,4)	on

IF YOU LIKE:

- Fix an area (say 24) and have students find all the different shaped rectangles with that area. Which areas could describe different rectangles and which describe only a few?
- Let students decide if they would rather know the area, the perimeter, or the length of one side as an initial clue.

Where's the Rectangle?

(ditto sheet)



Guess	Response