

## **Jumping Julia**

Help Julia get from **Start** to **finish**! Begin on the square in the upper left. Make a series of jumps that will allow you to land exactly on the square marked finish. The number on each square indicates how far you move when you bounce off the square. Your entire move must be in one direction either horizontally or vertically, not diagonally. You may not change direction in a single move.

- a) Find a path through the maze above. Is there more than one solution? Try to find another path. Explain how many solutions there are and how you know.
- b) Find a path through the maze on the back. How many solutions are there for that maze?
- c) Construct your own Jumping Julia maze. Start by creating a grid. Then construct a path that will take you from the start to the finish. Fill in the rest of the maze. Check your maze for unexpected answers. If your maze has more than one solution, see if you can revise your Jumping Julia maze so that has a single solution. Prepare a clean copy and attach to this solution sheet.

**Solutions & Explanations:** (Try one or try them all! Record your solutions and explanations above and on the back. Attach extra sheets if you make your own maze.)

| Name                           | Class                      |  |  |
|--------------------------------|----------------------------|--|--|
| (First and last name, please!) | Solutions due: January Oth |  |  |

<sup>©</sup> Julia Robinson Mathematics Festival (www.jrmf.org)

| Start   | 3  | 6 | 4 | 3 | 2 | 4 | 3      |
|---|--|---|---|---|---|---|--------|
|   | 2  | 1 | 2 | 3 | 2 | 5 | 2      |
| (   | 2  | 3 | 4 | 3 | 4 | 2 | 3      |
|   | 2  | 4 | 4 | 3 | 4 | 2 | 2      |
|   | 4  | 5 | 1 | 3 | 2 | 5 | 4      |
|   | 4  | 3 | 2 | 2 | 4 | 5 | 6      |
| ELECT<br>ELECTRONIC<br>ELECTRONIC<br>THE CONTRACTOR<br>THE CONTRACTOR | 2  | 5 | 2 | 5 | 6 | 1 | finish |
|   | Maze by Robert Abbott www.logicmazes.com Design by thecreativefold.com<br>Permission granted for use by the Aila Robinson Mathematics Festival (pref.org)<br>Ada tobace Mathematics/hoted (pref.org) reports loady organized were that |   |   |   |   |   |        |

© Julia Robinson Mathematics Festival (www.jrmf.org)