**Overheard on the forum**



AJ: Before we get started on the code, I have a question about the arrays. Each array has to represent the state of the grid. And the grid has rows *and* columns. I can see how to use an array to represent say one row in a grid, but how can we use an array to represent rows *and* columns?

Sarah: I think we'll have to use two dimensional arrays. So we'll have an array, and each value in that array will be another array.

AJ: That makes my head hurt a bit. Can you explain a bit more?

Sarah: Let's take a small example. Imagine you have a grid with two rows and two columns. So you basically have a grid with four cells. You'll need a = new Array(2);, and then a[0] = new Array(2); and a[1] = new Array(2);.

AJ: So then how do you access the cells in the grid?

Sarah: Like this: if you want the top left cell, you say a[0][0]. That says, "get the array in a[0] and then get the value in index 0 of that array." And if you want the top right cell, you say a[0][1]. And so on. In the game, you'll do that same thing, except for a much bigger grid, and use rows and cols instead of 2 for the size of the arrays.

AJ: Okay, I think I'm getting it! So the cells in the first row of our grid will be a[0][0], a[0][1], a[0][2] all the way to a[0][cols-1]. And the next row will be a[1][0], a[1][1], ... a[1][cols-1], and so on. Right?

Sarah: You've got it. Now let's get started on the code.