

**Topics:** 2-d arrays, semester wrap-up

**Reading (JV):** Sec 6.4, review **char** and **String** in Sec 2.4, 2.5

## Example 1: 2-d array and a useful pattern

Given a 2-d integer array **x**, find the maximum value in the array. Assume the array is rectangular.

What if the array is ragged instead of rectangular? Suppose all rows exist but the rows have different lengths.

What if not all rows exist and the existing rows have different lengths?

## Example 2: Strings in a 2-d array

Given **seat**, a 2-d array of **Strings** that stores a seating plan, write a program segment to *find the row and seat number of the person whose name is given through user input*. Array **seat** has dimensions just big enough to store the entire seating plan including internal spaces.

row				
1	Alice	Dilbert	Dogbert	
2	Ratbert		Wally	
3	Asok	Carol	Catbert	P-H Boss
	1	2	3	4
	seat			

**What we learned this semester. . .**

- Develop/implement algorithms for problems
- Develop programming skills
  - Design, test, debug, document, demonstrate
- Apply programming languages
  - Control structures
  - Function/methods for reducing redundancy
  - Data structure
  - Fundamentals of object oriented programming
- Specific tasks
  - Sorting
  - Simulation of systems
  - Text and string processing
  - Handling input/output files
  - Plotting numeric data