

CS367 Announcements

Wed, July 10th, 2013

- Midterm Thursday July 11th in class
 - material through July 3rd

Last Time

- Stacks and Queues

Today

- begin Recursion

Factorial n!

Write a method that computes the factorial of n.

$$n! = n * (n-1) * (n-2) * (n-3) * \dots * 2 * 1$$
$$6! = 6 * 5 * 4 * 3 * 2 * 1 = 720$$

Recursion vs. Iteration

Recursion is like iteration:

Recursion is NOT like iteration:

Flexibility of Recursion

Constructing Recursive Code

Write a recursive method that computes n^m , this, n raised to an integer power of m:

Key points:

1.

2.

3.

Fibonacci Sequence

Iterative method:

Recursive method: