

April 29, 2013

Name _____

6.035 Spring 2013

Miniquiz #22

5 minutes

1. Describe how to transform each of the following loops so that they are parallelizable.

(a) `int mult = 1;`
 `for i = 0 to n`
 `mult = mult * A[i];`

(b) `for i = 1 to n-1`
 `for j = 1 to n-1`
 `A[i,j] = A[i, j-1] + A[i-1, j];`

(c) `int x = 0;`
 `for i = 0 to n`
 `A[i] = x;`
 `x = x + 3;`

2. How can loop interchange improve the parallel performance of a loop nest?