

CSCI 305 Homework 6

Due Date: April 27, 2018 @ Beginning of Class

Name: _____

Cost Models

1. For each of the following, give a formula for computing the address to use for the array reference. Assume that the array A is allocated as single block at address $base$, and let $size$ be the size of an individual array element.
2. The element $A[i]$, where $0 \leq i \leq n$
3. The element $A[i][j][k]$, where $0 \leq i \leq m$, $0 \leq j < n$, and $0 \leq k < p$, and where the array is allocated in column-major order.

Concurrency

1. What are the three possible levels of concurrency in programs?

2. Describe the logical architecture of an MIMD computer.

3. Define the following terms:

- synchronization:

- deadlock:

- race condition:

4. What is the best action a system can take when deadlock is detected?

5. How are explicit locks supported in Java?