Contenido: Tema 4 de la Unidad 3	Fecha de entrega: 18/1/10

EJERCICIO 10

De la edición 2 del libro texto los enunciados 27-1.a, 29.3-4 y 30.3-1.

27-1 Implementing parallel loops using nested parallelism

Consider the following multithreaded algorithm for performing pairwise addition on n-element arrays A[1..n] and B[1..n], storing the sums in C[1..n]:

```
        SUM-ARRAYS(A, B, C)
1       parallel for i = 1 to A.length
2           C[i] = A[i] + B[i]
```

a. Rewrite the parallel loop in SUM-ARRAYS using nested parallelism (spawn and sync) in the manner of MAT-VEC-MAIN-LOOP. Analyze the parallelism of your implementation.

29.3-4

Solve the following linear program using SIMPLEX:

maximize $18x1 + 12.5x2$

subject to

$x1 + x2 \leq 20$

$x1 \leq 12$

$x2 \leq 16$

$x1, x2 \geq 0$.

30.3-1

Show how ITERATIVE-FFT computes the DFT of the input vector $(0, 2, 3, -1, 4, 5, 7, 9)$.