

CAMPUS VIRTUAL UPC / Les meves assignatures / 2021/22-01:FIB-270020-CUTotal / Unit 2.1: Understanding parallelism I
/ Questions after video lesson 2 (part 3)

Començat el dijous, 16 de setembre 2021, 16:38

Estat Acabat

Completat el dijous, 16 de setembre 2021, 16:39

Temps emprat 1 minut 53 segons

Qualificació 3,00 sobre 3,00 (100%)

Pregunta **1**

Correcte

Puntuació 1,00 sobre 1,00

Assume we want to parallelize a loop with 100 iterations with no dependences among them. The finest possible granularity would imply:

Trieu-ne una:

- ☐ a. 1 task with 100 iterations per task
- ☐ b. 10 tasks with 10 iterations per task
- ☒ c. 100 tasks with 1 iteration per task

✓ Well done!

Your answer is correct.

La resposta correcta és: 100 tasks with 1 iteration per task

Pregunta **2**

Correcte

Puntuació 1,00 sobre 1,00

Assume we want to parallelize a loop with 100 iterations with no dependences among them. The coarsest possible granularity would imply:

Trieu-ne una:

- ☒ a. 1 task with 100 iterations per task
- ☐ b. 10 tasks with 10 iterations per task
- ☐ c. 100 tasks with 1 iteration per task

✓ Well done!

Your answer is correct.

La resposta correcta és: 1 task with 100 iterations per task

Pregunta **3**

Correcte

Puntuació 1,00 sobre 1,00

Given a task decomposition D_0 , a finer-grain decomposition D_1 would have more tasks, with less work per task. Therefore, D_1 exposes more potential parallelism than D_0 and this **always** implies that D_1 executes faster than D_0 . Note: assume that all tasks are totally

independent in both D_0 and D_1 .

Trieu-ne una:

☐ Vertader

☒ Fals ✓

Congratulations! The exploitation of parallelism implies some overheads which can outweigh the benefits of having more tasks when they are too fine-grained.

La resposta correcta és 'Fals'.

[◀ Video lesson 2 \(part3\)](#)

Salta a...

[Additional material ▶](#)