

CAMPUS VIRTUAL UPC / Les meves assignatures / 2021/22-01:FIB-270020-CUTotal / Unit 2.1: Understanding parallelism I

/ Questions after video lesson 2 (part 2)

Començat el

dijous, 16 de setembre 2021, 16:23

Estat

Acabat

Completat el

dijous, 16 de setembre 2021, 16:35

Temps emprat

12 minuts 10 segons

Qualificació

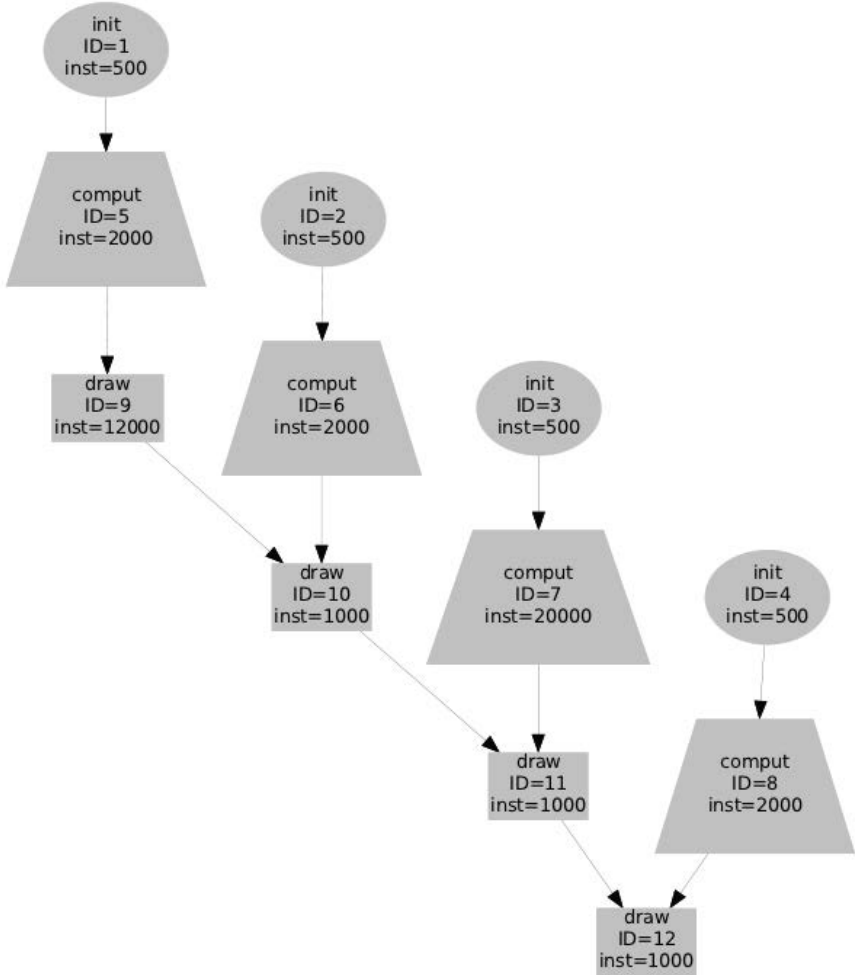
4,00 sobre 4,00 (100%)

Pregunta 1

Correcte

Puntuació 1,00 sobre 1,00

Given the following task dependence graph (TDG). Each node is labeled with a name and also includes an identifier ID and cost inst in terms of the number of instructions.



The TDG could be expressed textually with the following table:

name	ID	inst	successor ID task
init	1	500	5
init	2	500	6
init	3	500	7
init	4	500	8
compute	5	2000	9
compute	6	2000	10
compute	7	20000	11
compute	8	2000	12
draw	9	12000	11
draw	10	1000	11
draw	11	1000	12
draw	12	1000	

draw	9	12000	10
draw	10	1000	11
draw	11	1000	12
draw	12	1000	No successor

Observe that task *comput* with  $ID=7$  takes 10 times more than the other *comput* tasks and task *draw* with  $ID=9$  takes 12 times more than other *draw* tasks. Please, answer the following questions:

Which is the value for  $T_1$ ?

Trieu-ne una:

- ☐ a. 12
- ☒ b. 43000
- ☐ c. 78

✓

Well done!

La teva resposta és correcta.  
La resposta correcta és: 43000

Pregunta 2

Correcte

Puntuació 1,00 sobre 1,00

Which of the following sequences of tasks corresponds with the critical path in the task graph?

Trieu-ne una:

- ☐ 1, 5, 9, 10, 11, 12
- ☐ 1, 2, 3, 4, 8, 12
- ☒ 3, 7, 11, 12

✓

Well done!

La resposta correcta és: 3, 7, 11, 12

Pregunta 3

Correcte

Puntuació 1,00 sobre 1,00

Which is the corresponding value for  $T_\infty$ ?

Trieu-ne una:

- ☐ a. 35500
- ☐ b. 17500
- ☒ c. 22500

✓

Well done!

La teva resposta és correcta.  
La resposta correcta és: 22500

Pregunta 4

Correcte

Puntuació 1,00 sobre 1,00

Which is the value of the *Parallelism* metric that could be obtained with this task graph?

Trieu-ne una:

- ☐ a. 4
- ☒ b. 1.91
- ☐ c. 2.45

✓ Well done!

La teva resposta és correcta.

La resposta correcta és: 1.91

[◀ Video lesson 2 \(part2\)](#)

Salta a...

[Video lesson 2 \(part3\) ▶](#)