



**Començat el** dijous, 14 d'octubre 2021, 19:13

**Estat** Acabat

**Completat el** dijous, 14 d'octubre 2021, 19:14

**Temps emprat** 55 segons

**Qualificació** 6,00 sobre 6,00 (100%)

Pregunta **1**

Correcte

Puntuació 1,00 sobre 1,00

Assuming a UMA system with two processors, sharing the access to 8 GB of main memory. Coherence is implemented with snooping write-invalidate MSI.

Assuming initially empty caches, let's consider the following sequence of memory accesses to the same memory address w0, r0, w0, r1, r0, w1, w0, r1 (being rx a read access by processor x and wx a write access by processor x). In order to answer the following questions we suggest you do a table showing the CPU event (PrRd or PrWr), bus transaction (BusRd, BusRdX, BusUpgr or Flush) and cache line status (M, S or I) for each processor.

Is it true that all accesses to memory in the previous list always imply a bus transaction placed on the bus by the corresponding snoopy?

Trieu-ne una:

☐ Vertader

☒ Fals ✓

Well done! there are three accesses by processor 0 (the two r0 accesses and second w0 access) that do not place any bus transaction.

Pregunta **2**

Correcte

Puntuació 5,00 sobre 5,00

**Fil in the empty spaces in the following two sentences:**

The previous sequence of memory accesses implies

2

✓ BusRd,

2

✓ BusRdX,

1

✓ BusUpgr, and

3

✓ Flush commands. In total

2

✓ cache line invalidations are performed.

[◀ UMA coherence quizz \(1\)](#)

Salta a...

[Video lesson 5 \(part 1\): why directory-based coherence? ▶](#)