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Grupo: 52

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Hoja de respuesta al Estudio Previo

1. Rellenad la siguiente tabla (en hexadecimal):

| @ | byte | bloque M | línea MC | TAG | HIT/MISS | TAG out |
|----------|------|----------|----------|-------|----------|---------|
| 10f92150 | 10 | 87c90a | a | 10f92 | Miss | |
| 10f92151 | 11 | 87c90a | a | 10f92 | Hit | |
| 10f8a192 | 12 | 87c50c | c | 10f8a | Miss | |
| 10f92153 | 13 | 87c90a | a | 10f92 | Hit | |
| 10f8b195 | 14 | 87c58c | c | 10f8b | Miss | 10f8a |
| 10f8b195 | 15 | 87c58c | c | 10f8b | Hit | |
| 10f93156 | 16 | 87c98a | a | 10f93 | Miss | 10f92 |
| 10f92157 | 17 | 87c90a | a | 10f92 | Miss | 10f93 |
| 10f8a198 | 18 | 87c50c | c | 10f8a | Miss | 10f8b |
| 10f93159 | 19 | 87c98a | a | 10f93 | Miss | 10f92 |
| 12f92250 | 10 | 97c912 | 12 | 12f92 | Miss | |
| 10f92151 | 11 | 87c90a | a | 10f92 | Miss | 10f93 |
| 10f8a192 | 12 | 87c50c | c | 10f8a | Hit | |
| 12f92253 | 13 | 97c912 | 12 | 12f92 | Hit | |
| 10f8b195 | 14 | 87c58c | c | 10f8b | Miss | 10f8a |
| 10f8b195 | 15 | 87c58c | c | 10f8b | Hit | |
| 10f93156 | 16 | 87c98a | a | 10f93 | Miss | 10f92 |
| 12f92257 | 17 | 97c912 | 12 | 12f92 | Hit | |
| 10f8a298 | 18 | 87c514 | 14 | 10f8a | Miss | |
| 10f93159 | 19 | 87c98a | a | 10f93 | Hit | |

2. Rellenad la siguiente tabla (en hexadecimal):

| @ | byte | bloque M | conj MC | VIA | TAG | HIT/MISS | TAG out |
|----------|------|----------|---------|-----|-------|----------|---------|
| 10f92150 | 10 | 87c90a | a | 0 | 21f24 | MISS | |
| 10f92151 | 11 | 87c90a | a | 0 | 21f24 | HIT | |
| 10f8a192 | 12 | 87c50c | c | 0 | 21f14 | MISS | |
| 10f92153 | 13 | 87c90a | a | 0 | 21f24 | HIT | |
| 10f8b195 | 14 | 87c58e | c | 1 | 21f16 | MISS | |
| 10f8b195 | 15 | 87c58e | c | 1 | 21f16 | HIT | |
| 10f93156 | 16 | 87c98a | a | 1 | 21f26 | MISS | |
| 10f92157 | 17 | 87c90a | a | 0 | 21f24 | HIT | |
| 10f8a198 | 18 | 87c50c | c | 0 | 21f14 | HIT | |
| 10f93159 | 19 | 87c98a | a | 1 | 21f26 | HIT | |
| 12f92250 | 10 | 97c912 | 12 | 0 | 25f24 | MISS | |
| 10f92151 | 11 | 87c90a | a | 0 | 21f24 | HIT | |
| 10f8a192 | 12 | 87c50c | c | 0 | 21f14 | HIT | |
| 12f92253 | 13 | 97c912 | 12 | 0 | 25f24 | HIT | |
| 10f8b195 | 14 | 87c50c | c | 1 | 21f16 | HIT | |
| 10f8b195 | 15 | 87c58e | c | 1 | 21f16 | HIT | |
| 10f93156 | 16 | 87c98a | a | 1 | 21f26 | HIT | |
| 12f92257 | 17 | 97c912 | 12 | 0 | 25f24 | HIT | |
| 10f8a298 | 18 | 87c514 | 14 | 0 | 21f14 | MISS | |
| 10f93159 | 19 | 87c98a | a | 1 | 21f26 | HIT | |

3. Para el primer código C, la cache directa obtiene:

Aciertos: 39680

Fallos: 1280

$$40960 - 1280$$

$$102404 - 101124$$

$$40960 / 32$$

$$102404 = 40960 \text{ refs.}$$

4. Para el primer código C, la cache 2 asociativa con reemplazo LRU obtiene:

Aciertos: 39680

Fallos: 1280



5. Para el segundo código C, la cache directa obtiene:

Aciertos: 60.000

Fallos: 20.000

$$10.000 \times 2 \times 4 = 80 \text{ k refs.}$$

$$1 \text{ HIT} / 3 \text{ MISSES} \Rightarrow 32/4 = 8$$

6. Para el segundo código C, la cache 2 asociativa con reemplazo LRU obtiene:

Aciertos: 22500

Fallos: 2500

$$80.000 \text{ refs} - 2500 \text{ MIS}$$

$$\frac{80.000}{32} = 2500$$