3827 OH

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Overview

1. **Announcements**
   - Upcoming Exams and Homework
   - Feedback

2. **Homework 9 Material**
   - Overview and Relevant Lectures
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Announcements

Announcements: Upcoming Exams and Homework

- HW9 due 4/22
- Sec 3 final exam 5/6 (tentative)
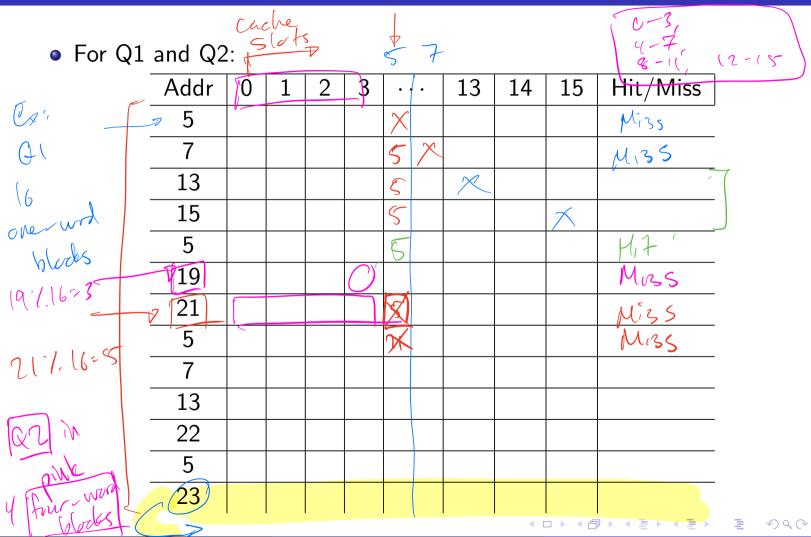- Sec 1/2 final exam 5/12 (tentative)

Announcements: Feedback

- Form: `https://forms.gle/cnUmKVNYN7WvRbHA6`

Homework 9 Material

Homework 9 Material: Overview and Relevant Lectures

- Cache locality (Lecture 13, Slides 19-22)
- Blocks (Lecture 13, Slides 23-31)
- Reading from Cache (Lecture 13, Slides 32-35)
- Direct Mapping (Lecture 13, Slides 36-66)
- Direct Mapping MIPS (Lecture 13, Slides 67-72)
- Associative Mapping (Lecture 13, Slides 73-89)
- Writing to Memory (Lecture 13, Slides 90-93)

Homework 9 Material: Notes

- For Q1 and Q2:

Cache Slots

5 7

0-3,
4-7,
8-15,   12-15

Addr	0	1	2	3	⋯	13	14	15	Hit/Miss
5					X				Miss
7					5 X				Miss
13					5	X			
15					5			X	
5					5				Hit
19			O						Miss
21					X				Miss
5					X				Miss
7									
13									
22									
5									
23									

Q1
16 one-word blocks

19 % 16 = 3

21 % 16 = 5

Q2 in pink
4 four-word blocks

- For Q1 and Q2: 0−3 , 4−7, 8−11, 12−15

Q2:

Addr	0	1	2	3	⋯	13	14	15	Hit/Miss
5									Miss
7									
13									
15									
5									
19									
21									
5									
7									
13									
22									
5									
23									

			cache slots			
Addr	...	4	5	6	7	
5			✗			Miss
7		4	5	6	⑦	Hit
⋮						
21			✗			Miss
		20	21	22	23	