


Kahoot!

Cache Quiz 1

1 play · 79 players

 A kahoot by Penn State

Questions (8)

1 - Quiz

Memory address that was accessed will be accessed again soon. This concept is called...

30 sec



Temporal locality



Spatial locality



Local locality



Repeat locality



2 - Quiz

If a memory address is accessed, the address right next to it will also be accessed. This is...

30 sec



Temporal locality



Spatial locality



Neighbor locality



iDontKnowAndiDontCare locality



3 - Puzzle

Place them in the order of fastest to slowest

60 sec



Register file

Cache

Main memory

Secondary memory (storage)

4 - Puzzle

Place them in the order of fastest to slowest

60 sec



SRAM

DRAM

SSD

~~Register file~~

5 - Quiz

If block 7 accessed when the cache looks like this, what happens?

90 sec



Cache hit

Cache miss, Mem(4) is evicted

Cache miss, Mem(1) is evicted

Cache miss, Mem(3) is evicted

01	Mem(4)
00	Mem(1)
00	Mem(2)
00	Mem(3)



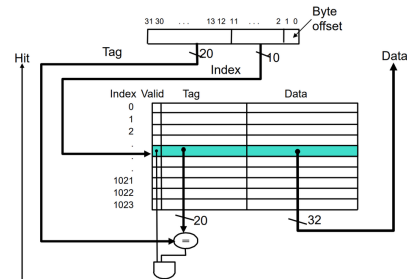
6 - Slider

How many bits are needed for index, if you have 4K blocks in a direct-mapped cache?

90 sec



12

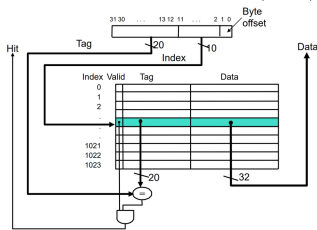


7 - Slider

How many bits are needed for tag, if you have 8K blocks in a direct-mapped cache?

90 sec

17



8 - Slider

How many bits are needed for the block offset, if you have 8 words per block?

90 sec

3

