


# Virtual memory quiz

1 play · 65 players

 A kahoot by Penn State

## Questions (6)

1 - Poll

**Exam 2 survey: How was the exam time?**

20 sec



Too short



Just right



Too long



Wait, there was an exam?

2 - Poll

**Exam 2 survey: How was the questions?**

20 sec



Toooooo easy



Just right



Too hard!!







Honestly I did not study so I don't know

## 3 - Quiz

If you are accessing an array  $A[i][j]$  in a nested loop, which of the following is true?





90 sec

-  The innermost loop should be i for good spatial locality ✗
-  The innermost loop should be j for good spatial locality ✓
-  The innermost loop should be i for good temporal locality ✗
-  The innermost loop should be j for good temporal locality ✗

## 4 - Quiz

What is NOT the benefit of using virtual memory?





60 sec

-  Each program has an illusion of having a private virtual address space ✗
-  Each program has an illusion of having a larger memory ✗
-  Main memory sharing can be done safely across programs ✗
-  Improves cache performance ✓

## 5 - Quiz

What is NOT true about virtual address translation?

60 sec

-  Pages can either be in the main memory or secondary storage ✗
-  It leverages the concept of locality ✗
-  It uses a dedicated hardware resource called a page table ✓
-  It is done by the OS ✗

## 6 - Quiz

**What is NOT true about the difference between virtual memory translation and the cache lookup?**

60 sec



Pages are larger than cache blocks



Page placement is fully associative, while cache placement is usually not



Software finds pages, while hardware finds cache blocks



Writes to pages are write-through, while to caches are write-back

