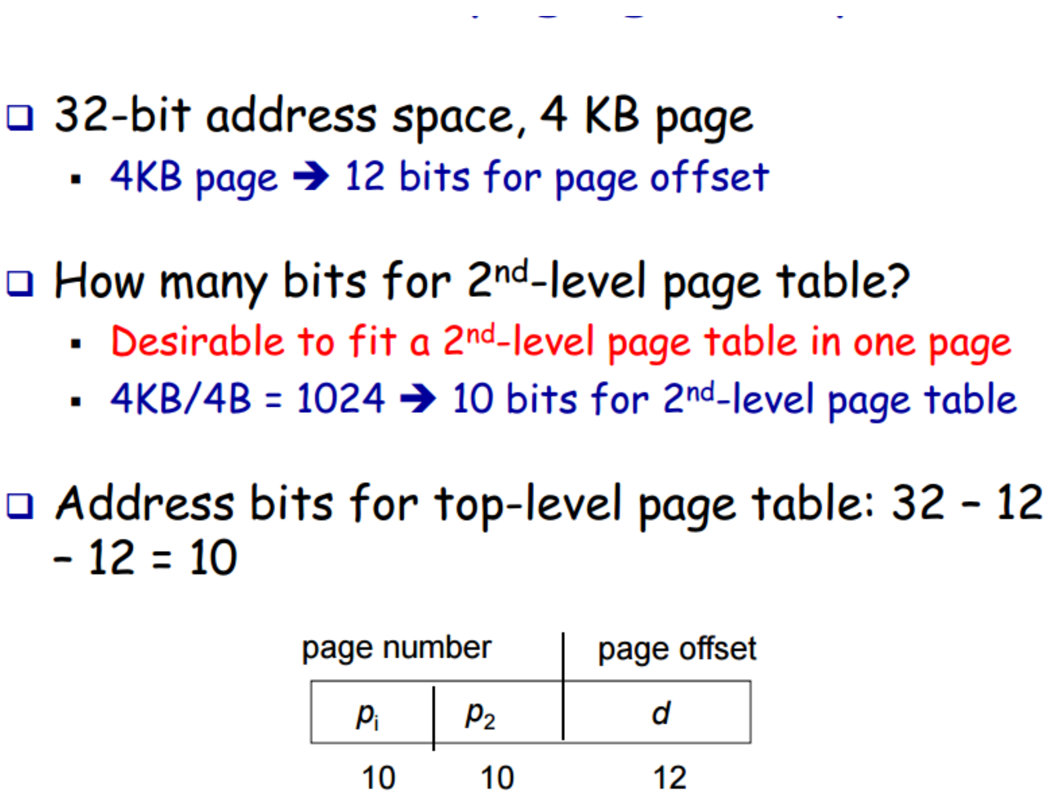

- 32-bit address space, 4 KB page
  - 4KB page → 12 bits for page offset
- How many bits for 2nd-level page table?
  - Desirable to fit a 2nd-level page table in one page
  - 4KB/4B = 1024 → 10 bits for 2nd-level page table
- Address bits for top-level page table: 32 - 12 - 12 = 10

page number		page offset
p_i	p_2	d
10	10	12

Consider the same parameters:

1. logical address space: 32-bit
2. page size: 4KB (2^12)
3. page table entry size: 4 bytes.
4. physical memory: 2GB (2 ^31)

Number of entries in the page table = Number of physical pages =

(2^31)/(2^12) = 2^19 physical pages or frames.

Let's say we use 1 byte process identifiers. Size of each page table entry would be:

8 bits (PID)+20bits (virtual page number)+4bits (access information) = 32 bits = 4 bytes.

Size of the page table = (2^19) *4 = 2MB for the entire system.