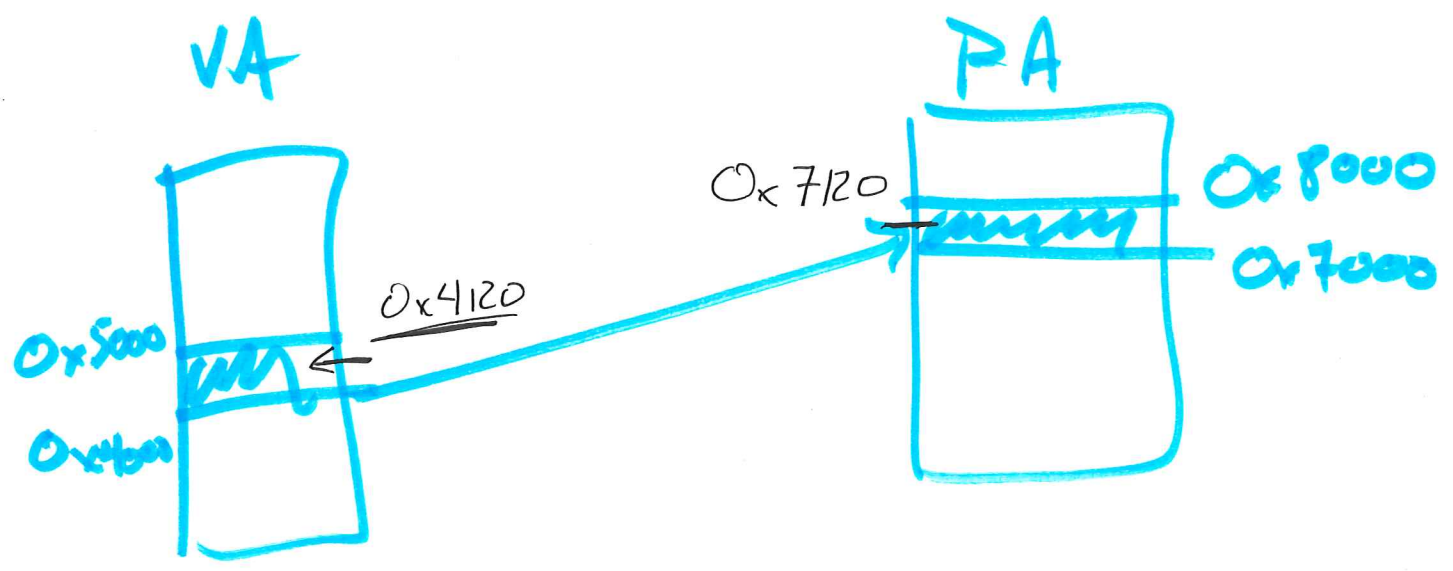


flat page tables are inefficient if VA space is sparse  
 Sparse Address space: only a few VA pages used



# Multi-level + real page tables

x86 (64-bit) → 4-level page table

each level has 512 entries

$2^9 \rightarrow 8 \text{ bytes}$

48-bit VA PTE → 8 bytes  $4 \text{ KiB}$  page

flat page table → # entries?

