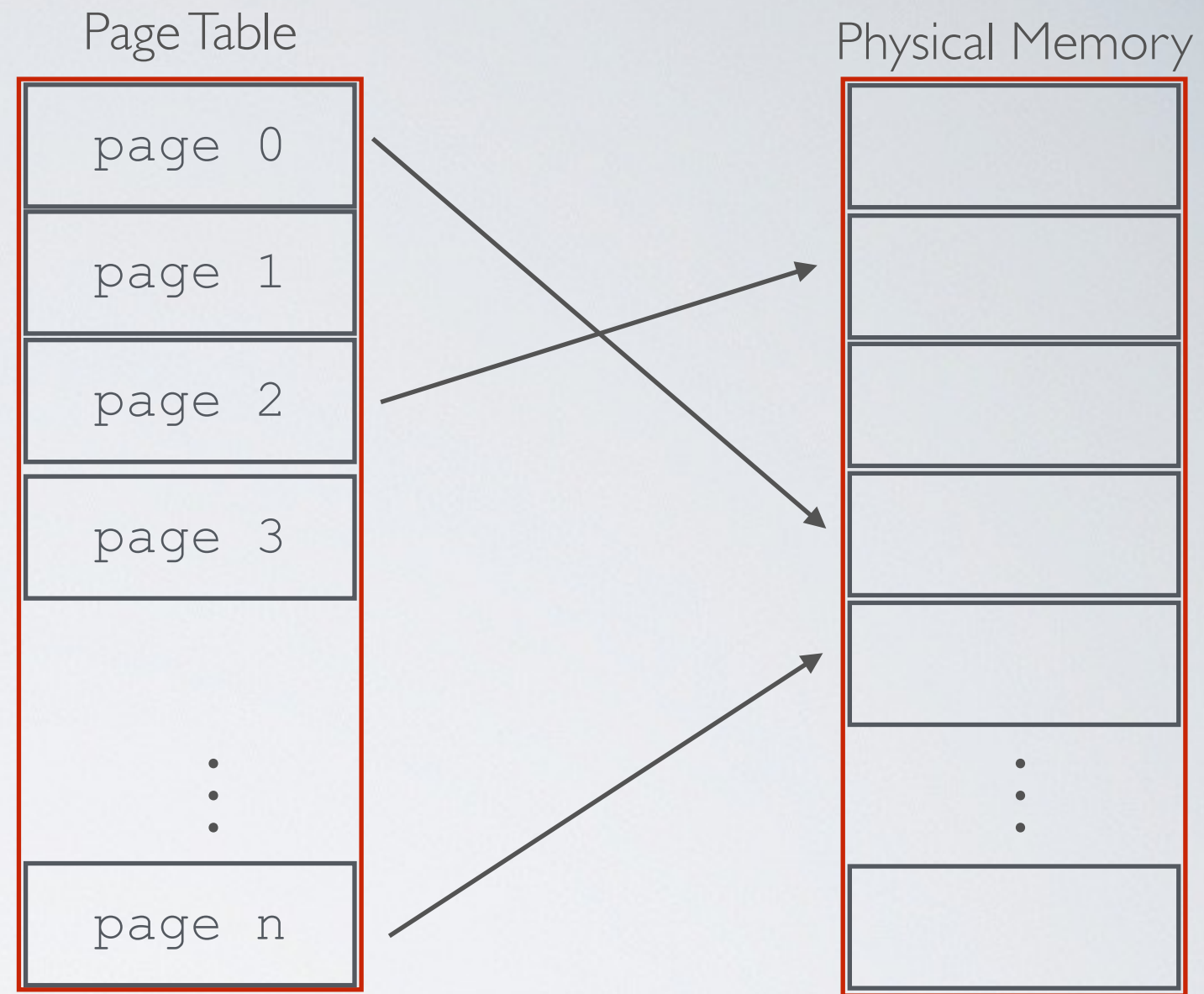


The problem



Each process has a page table defining its address space

- Considering 32-bit address space with 4K pages
the size of the pages table is $2^{32} / 2^{12} \times 4 \text{ B} = 4\text{MB}$ / process
this is a big overhead!

Solution

- ⦿ **Problem:** each process has a page table that maps all pages in its address space
- ✓ **Solution:** we only need to map the portion of the address space actually being used
- ➔ Use another level of indirection : **two-level page tables**