

Tutorial 12 – Week of Dec. 6th

Final Exam Preparation

- Q1) Tutorial 2, Q3 (2.7)
- Q2) Tutorial 3, Q1 (2.13)
- Q3) Tutorial 4, Q2 (2.31)
- Q4) Tutorial 7, Q4 (4.5)
- Q5) A machine has a 32-bit virtual address space and a 16KB page size. It has 1GB of physical memory. How many pages does a process have? How many bytes are needed for a page table, assuming 4 control bits and that disk addresses are stored elsewhere?

Solution:

$$\begin{aligned}\text{Pages per process} &= 2^{32} \text{ bytes} * (1 \text{ page} / 16 * 2^{10} \text{ bytes}) \\ &= 2^{32} / 2^{14} = 2^{18} = 256\text{K pages}\end{aligned}$$