Null Pointer Reference:

Modify MAKEFILE, exec, vm so that using address 0 will raise an exception.

Scheduler:

Add sys\_settickets/sys\_getpinfo in sysproc and then add settickets/getpinfo in proc as helper function.

In trap find the part where process is about to yield. Accumulate ticks here. Check if process still has tickets. If yes, deduct tickets and not yield. Otherwise, yield.

Restore tickets when switching back in scheduler.

Process runs N tickets according to its tickets and then switches

![一張含有 文字 的圖片

自動產生的描述]()

After running for a while, you can see that the ticks each process accumulated is proportional to tickets

