

In-class Exercise: The code below shows a function `resume()` similar to the one found in Xinu. The function captures a process' priority in local variable `prio` before making the process eligible to use the CPU (i.e., before calling `ready()`). The calls to `disable()` and `restore()` disable CPU interrupts and restore them. If the two statements with comments STATEMENT A and STATEMENT B are reversed, `resume` can return a priority value that the resumed process never had. Briefly explain how. (*Acknowledgment: Prof. Comer designed this problem.*)

```
/*-----  
* resume - make a process ready and return its priority  
*-----*/  
pril6 resume(  
    pid32 pid                /* ID of process to make ready */  
)  
{  
    intmask mask;           /* saved interrupt mask */  
    pril6 prio;            /* priority value to return */  
    mask = disable();      /* disable interrupts */  
  
    /* Code is omitted that checks the argument; assume pid valid */  
  
    /* Extract process' priority from the process table */  
    prio = proctab[pid].pprio; /* STATEMENT A */  
  
    /* Make process ready and allow it to run */  
    ready(pid, RESCHED_YES); /* STATEMENT B */  
    restore(mask);  
    return prio;  
}
```