

Problem 25. (8 points):

Consider the following IA32 code for a procedure `foo()`:

```
foo:
    pushl %ebp
    movl %esp,%ebp
    movl 8(%ebp),%ecx
    movl 16(%ebp),%edx
    movl 12(%ebp),%eax
    decl %eax
    js .L3
.L7:
    cmpl %edx, (%ecx,%eax,4)
    jne .L3
    decl %eax
    jns .L7
.L3:
    movl %ebp,%esp
    popl %ebp
    ret
```

Based on the assembly code above, fill in the blanks below in its corresponding C source code. (Note: you may only use symbolic variables *a*, *n*, *val*, and *i* from the source code in your expressions below—do *not* use register names.)

```
int foo(int *a, int n, int val) {
    int i;

    for (i = _____; _____ ; i = _____) {
        ;
    }
    return i;
}
```