

Introduction to Computer Systems

Homework #4

Due: April 14th (in class).

Given the following function header:

```
int mystery(int *a, int *b, int i)
```

write C code for the body of the function that is equivalent to the following assembly code. The function's return value is left in register `%eax` at the end of the function.

mystery:

```
    pushl    %ebp
    movl    %esp, %ebp
    pushl    %ebx
    pushl    %esi
    movl    16(%ebp), %edx
    movl    8(%ebp), %ebx
    movl    12(%ebp), %esi
    movl    (%ebx,%edx,4), %eax
    movl    (%esi,%edx,4), %ecx
    movl    %ecx, (%ebx,%edx,4)
    movl    %eax, (%esi,%edx,4)
    movl    (%ebx,%edx,4), %ecx
    addl    %ecx, %eax
    popl    %esi
    popl    %ebx
    movl    %ebp, %esp
    popl    %ebp
    ret
```