Problem 1: (25 points)
Do problem 29 on page 171 of your textbook.

Problem 2: (25 points)
Do problem 3 on page 236 of your textbook.

Problem 3: (25 points)
Create a template to manipulate matrices. You template should include the following operation:
- Addition, Multiplication, Subtraction, and Transpose
(a) Implement your template using both java and C++
(b) Send your code to csci169@gwu.edu and to me.

Problem 4: (25 points)
Given the following C2 type language:
```
sub2(int x) {
    int c = 10;
    Return (x + c);
}
sub1(int i, int j) {
    If (i<=j)
        return i
    else
        return(sub2(j))
}
main() {
    int n, m;
    get(n, m);
    print(sub1(m, n));
}
```
a) Give the SIMPLESEM code for this program.
b) Show the final state of your machine for n=3 and m = 5
c) Show the final state of your machine for n=5 and m = 3