Assignment 1

Question 1

What is the time, space complexity of following code:

```
 int a = 0, b = 0;
for (i = 0  i < N; i++)
{a = a +1;
}
for (j = 0; j < M; j++)
{b = b + j;
   }
```

Ans: O(N + M) time, O(1) space

Question 2

What does it mean when we say that an algorithm X is asymptotically more efficient than Y?

    a) X will be a better choice for all inputs
    b)X will be a better choice for all inputs except possibly small inputs
    c)X will be a better choice for all inputs except possibly large inputs
    d)Y will be a better choice for small inputs

Ans: X will be a better choice for all inputs except possibly small inputs