CSE 143 Au00 Quiz 5 – November 28, 2000

Name _____ Section _____

For each of the following sequences of code, use $O(\ )$ notation to describe the running time in terms of N. Give a lower bound for the running time; don't just answer that all are $O(2^n)$.

1.
```
double grid[N][N];
...
for (int j = 0; j < N; j++)
    for (int k = 1; k <= 3; k++)
        grid[j][k] = j*k;
```

Running time is $O(\ \underline{\quad n \quad}\ )$

2.
```
double m[N][N];
...
for (int r = 0; r < N; r++)
    for (int c = 0; c <= r; c++)
        m[r][c] = 1;
for (int d = 0; d < N; d++)
    m[d][d] = 0;
```

Running time is $O(\ \underline{\quad n^2 \quad}\ )$