

1) (5 pts) ANL (Algorithm Analysis)

What is the big O runtime for the following segment of code in terms of N and M? (Note: let $\min(x, y)$ denote the minimum of x and y and $\max(x, y)$ denote the maximum of x and y. You may use either of these in your answer. **In addition to your answer, please provide justification for your answer.**

```
int fun(int N, int M, int ** grid) {  
    int a1 = 0, a2 = 0;  
    for (int i = 0; i < N || i < M; i++) {  
        if (i < N) a1 += grid[i][0];  
        if (i < M) a2 += grid[0][i];  
    }  
    if (a1 < a2) return a2;  
    return a1;  
}
```