Pseudocode Assignment B09705039劉惟恩
Homework 1

第一種函數方法：

```
int f(p, x, y, r)
//p is the population array, (x, y) is where the hospital is, r is the range
        int covered = 0
        for i from 0 to m:
                for j from 0 to n:
                        if |i - x| + |j - y| <= r:
                                covered += pij
        return covered     // return the population covered in the area
```

第二種函數方法：

```
int f(p, x, y, r)
        int covered = 0
        for j from y - r to y + r:
                for i from x - (r - abs(j - y)) to x + (r - abs(j - y)):
                        (if 0 <= i <= xLimit and 0 <= j <= yLimit)
                         // if r is in the covered area this row can be deleted
                                covered += pij
        return covered
```

主程式：

```
int f()
        input xLimit, yLimit, range, popArray[][] = {0}
        int maximumPopulation = 0
        for i from 0 to xLimit:
                for j from 0 to yLimit:
                        int covered = f(popArray, i, j, range)
                        if maximumPopulation < covered:
                                maximumPopulation = covered
        print maximumPopulation
```