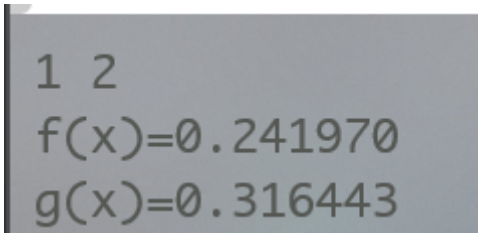
第一题




```cpp
#include <stdio.h>
#include <cmath>
#define pi 3.1416
#pragma warning(disable: 4996)
int main() {
    double x,y;
    scanf("%lf %lf", &x,&y);
    printf("f(x)=%lf\n", (1/(sqrt(2*pi))*exp(-x*x/2)));
    printf("g(x)=%lf",(1.0/3.0) * sin(x * x + y * y) * cos(x + y));


    return 0;
}
```

第二题

1. x=0时为1，x=1时为0

2. 0

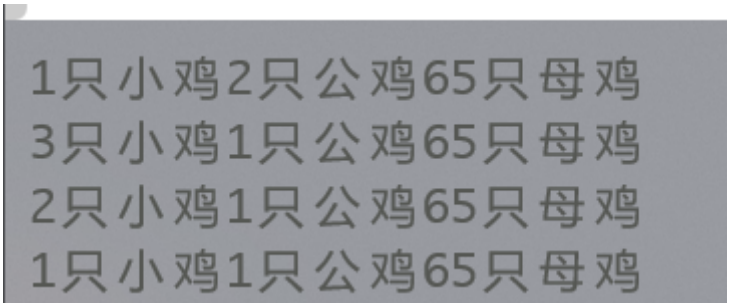
3. $a \in (-10,-5)$且$b=c$时为1，其余为0

4. 1
5. $0<y<5$且$5<b<6$时为1，其余为0
6. 1
7. $y<2$且$3<x<5$时为1，其余为0

第三题


```c
#include <stdio.h>
int main() {
    int a = 1,b = 0, c = 0;
    b = 0;
    c = 1;
    b = 1;
    if (a == 1 && b == 0 && c == 0)printf("甲在说谎");
    a = 0, b = 1, c = 0;
    b = 1;
    c = 0;
    b = 1;
    if (a == 0 && b == 1 && c == 0)printf("乙在说谎");
    a = 0, b = 0, c = 1;
    b = 1;
    c = 1;
    if (a == 0 && b == 0 && c == 1)printf("丙在说谎");
    return 0;
}
```

选做题




```c
#include <stdio.h>
int main() {
    int a, b, c;
    for (c = 100;c > 0;c--) {
        if (15 * c <= 1000) {
            if (1000 - 15 * c >= 15) {
                int rest_ab = 1000 - 15 * c;
```

```
                for (b = rest_ab / 10;b > 0;b--) {
                    int rest_a = rest_ab - 10 * b;
                    for (a = rest_a / 5;a > 0;a--) {
                        printf("%d只小鸡%d只公鸡%d只母鸡\n", a, b,
c);
                    }
                }
                break;
            }
        }
    }
    return 0;
}

```