Experiment 3.1

①
```c
#include <stdio.h>
int main() {
    float side1, side2, side3;

    printf(" Enter the lengths of the three sides of the triangle")
    scanf("%f %f %f", &side1, &side2, &side3);

    if (side1 + side2 > side3 && side1 + side3 > side2
        && side2 + side3 > side1) {
        printf("the triangle is valid \n");
    }
    if (side1 == side2 && side2 == side3) {
        printf(" The triangle is equilateral \n")
    } else if (side1 == side2 || side2 == side3) {
        printf("the triangle is isosceles. \n")
    } else {    printf(" the triangle is scalene
        \n")
    } else {
        printf(" the triangle is not valid \n")
}
```

```c
#include <stdio.h>

int main() {
    int l1, b1, l2, b2, l3, b3;
    int p1, p2, p3, max, rect;

    printf("Enter length and breadth of rectangle 1: ");
    scanf("%d %d", &l1, &b1);
    printf("Enter length and breadth of rectangle 2: ");
    scanf("%d %d", &l2, &b2);
    printf("Enter length and breadth of rectangle 3: ");
    scanf("%d %d", &l3, &b3);

    p1 = 2 * (l1 + b1);
    p2 = 2 * (l2 + b2);
    p3 = 2 * (l3 + b3);

    max = (p1 > p2) ? ((p1 > p3) ? p1 : p3) : ((p2 > p3) ? p2 : p3);
    rect = (max == p1) ? 1 : (max == p2) ? 2 : 3;

    printf("Rectangle %d has the highest perimeter: %d\n", rect, max);

    return 0;
}
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
45
Enter length and breadth of rectangle 2: 23
46
Enter length and breadth of rectangle 3: 25
57
Rectangle 3 has the highest perimeter: 164
PS C:\C language\class.c>
```