C Programs with Output

1. Accept two numbers and an operator (+,-,,/,%).*

```
#include <stdio.h>
int main() {
    int a, b;
    char op;
    printf("Enter two numbers: ");
    scanf("%d %d", &a, &b);
    printf("Enter operator (+,-,*,/,%): ");
    scanf(" %c", &op);

    switch(op) {
        case '+': printf("Result = %d", a+b); break;
        case '-': printf("Result = %d", a-b); break;
        case '*': printf("Result = %d", a*b); break;
        case '/': printf("Result = %d", a/b); break;
        case '%': printf("Result = %d", a%b); break;
        default: printf("Invalid operator");
    }
    return 0;
}
```

Example:
Input: 10 5 + Output: 15

2. Accept three sides of a triangle and check type.

```
#include <stdio.h>
int main() {
    int a, b, c;
    printf("Enter three sides: ");
    scanf("%d %d %d", &a, &b, &c);

    if(a == b && b == c)
        printf("Equilateral Triangle");
    else if(a == b || b == c || a == c)
        printf("Isosceles Triangle");
    else
        printf("Scalene Triangle");

    return 0;
}
```

Example:
Input: 5 5 5 Output: Equilateral Triangle

3. Greatest of three numbers using nested if-else.

```
#include <stdio.h>
int main() {
    int a, b, c;
    printf("Enter three numbers: ");
    scanf("%d %d %d", &a, &b, &c);

    if(a > b) {
        if(a > c)
            printf("Greatest = %d", a);
        else
            printf("Greatest = %d", c);
    } else {
        if(b > c)
            printf("Greatest = %d", b);
        else
            printf("Greatest = %d", c);
    }
    return 0;
```

```
}
```

Example:

Input: 10 25 7 Output: 25

4. Marks classification.

```
#include <stdio.h>
int main() {
    int marks;
    printf("Enter marks: ");
    scanf("%d", &marks);

    if(marks > 75)
        printf("Distinction");
    else if(marks > 65)
        printf("First Class");
    else if(marks > 55)
        printf("Second Class");
    else if(marks >= 40)
        printf("Pass Class");
    else
        printf("Fail");

    return 0;
}
```

Example:

Input: 68 Output: First Class

5. Discount calculation.

```
#include <stdio.h>
int main() {
    float price, discount, final;
    char student;
    printf("Enter price: ");
    scanf("%f", &price);
    printf("Are you a student (y/n): ");
    scanf(" %c", &student);

    if(student == 'y' || student == 'Y') {
        if(price > 500) discount = price * 0.20;
        else discount = price * 0.10;
    } else {
        if(price > 600) discount = price * 0.15;
        else discount = 0;
    }

    final = price - discount;
    printf("Final price = %.2f", final);
    return 0;
}
```

Example:

Input: 600 y Output: 480.00

6. Check divisibility by 3 and 5.

```
#include <stdio.h>
int main() {
    int n;
    printf("Enter a number: ");
    scanf("%d", &n);

    if(n % 3 == 0 && n % 5 == 0)
        printf("Divisible by both");
    else if(n % 3 == 0)
        printf("Divisible by 3 but not by 5");
    else if(n % 5 == 0)
        printf("Divisible by 5 but not by 3");
```

```
            else
                printf("Divisible by None");

            return 0;
        }
```

Example:
Input: 15 Output: Divisible by both

7. Age classification.

```
        #include <stdio.h>
        int main() {
            int age;
            printf("Enter age: ");
            scanf("%d", &age);

            if(age < 12)
                printf("Child");
            else if(age >= 12 && age <= 19)
                printf("Teenager");
            else if(age >= 20 && age <= 59)
                printf("Adult");
            else
                printf("Senior");

            return 0;
        }
```

Example:
Input: 25 Output: Adult