**PROGRAM 1:** WACP to demonstrate the use of break and continue statements in C.

**Code**

```c
/* Program to demonstrate break and
 * continue statements
 */
#include <stdio.h>

int main()
{
    int i, j;
    for (i = 0; i < 10; i++) {
        if (i == 7) {
            break;
        } else {
            printf ("%d ", i);
        }
    }
    printf ("\nLoop i ends, i = %d\n", i);

    for (j = 0; j < 10; j++) {
        if (j == 7) {
            continue;
        } else {
            printf ("%d ", j);
        }
    }
    printf ("\nLoop j ends, j = %d\n", j);
}
```

**Output**

```
/tmp/Ha74yZIhDi.o
0 1 2 3 4 5 6
Loop i ends, i = 7
0 1 2 3 4 5 6 8 9
Loop j ends, j = 10
```

**PROGRAM 2:** WACP to take a number as input and check if the number is a prime number.

**Code**

```c
/* Program to input a number and check if
 * it is a prime number
 */
# include <stdio.h>

int main()
{
    int num, i, flag = 0;
    printf ("Enter a number: ");
    scanf ("%d", &num);
    for (i = 2; i <= num / 2; i++) {
        if (num % i == 0) {
            flag = 1;
            break;
        }
    }
    if (flag == 1) {
        printf ("Not prime\n");
    } else {
        printf ("Prime\n");
    }
    return 0;
}
```

**Outputs**

```
/tmp/MTJC4GMsrd.o
Enter a number: 53
Prime
```

```
/tmp/MTJC4GMsrd.o
Enter a number: 53
Prime
```

**PROGRAM 3:** WACP to take input a number and check if it is a perfect number or not.

**Code**

```c
/* Program to input a number and check if
 * it is a perfect number
 */
#include <stdio.h>

int main()
{
    int num, i, sum = 0;
    printf ("Enter a number: ");
    scanf ("%d", &num);
    for (i = 1; i <= num / 2; i++) {
        if (num % i == 0) {
            sum += i;
        }
    }
    if (sum == num) {
        printf ("Perfect number\n");
    } else {
        printf ("Not perfect\n");
    }
    return 0;
}
```

**Outputs**

```
/tmp/Ha74yZIhDi.o
Enter a number: 6
Perfect number
```

```
/tmp/Ha74yZIhDi.o
Enter a number: 34
Not perfect
```

**PROGRAM 4:** WACP to take input a number and check if it is a palindrome number.

**Code**

```c
/* Program to input a number and check if
 * it is a palindrome number
 */
# include <stdio.h>

int main()
{
    int num, i, remainder, rev_num = 0;
    printf ("Enter a number: ");
    scanf ("%d", &num);
    for (i = num; i != 0; i /= 10) {
        remainder = i % 10;
        rev_num = rev_num * 10 + remainder;
    }
    if (rev_num == num) {
        printf ("Palindrome\n");
    } else {
        printf ("Not palindrome\n");
    }
    return 0;
}
```

**Outputs**

```
/tmp/2CZYOZGCJd.o
Enter a number: 90409
Palindrome
```

```
/tmp/2CZYOZGCJd.o
Enter a number: 50045
Not palindrome
```

**PROGRAM 5:** WACP to demonstrate associativity of printf function while taking arguments.

**Code**

```c
/* Program to demonstrate the associativity
 * of printf function
 */
#include <stdio.h>

int main()
{
    int x = 5, y = 7;
    printf ("%d, %d, %d\n", x++, x, ++x);
    printf ("%d, %d, %d\n", ++y, y, y++);
    return 0;
}
```

**Output**

```
/tmp/Ha74yZIhDi.o
6, 7, 7
9, 9, 7
```