

PROGRAM 1: Develop a program to calculate the sum of squares of first n odd numbers.

Input:

```
#include <stdio.h>

#include <conio.h>

int main()
{
    int num, i, sum=0;

    clrscr();

    printf("\nEnter the value for n: ");

    scanf("%d", &num);

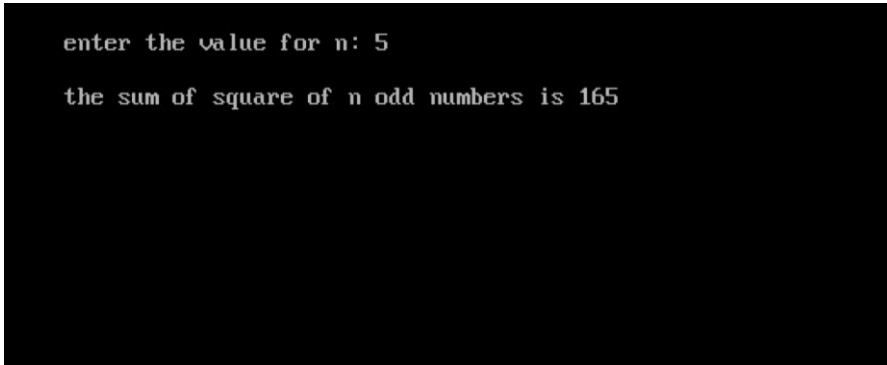
    for(i=1; i<=num; i++)
    {
        sum +=(2*i-1)*(2*i-1);
    }

    printf("\nThe sum of square of n odd numbers is %d\n", sum);

    getch();

    return(0);
}
```

Output:

A screenshot of a terminal window with a black background and white text. The first line shows the prompt 'enter the value for n: 5' where '5' has been entered. The second line shows the output 'the sum of square of n odd numbers is 165'.

```
enter the value for n: 5
the sum of square of n odd numbers is 165
```

PROGRAM 2: Develop a C program to interchange the largest and smallest number in the given array.

Input:

```
#include <stdio.h>

#include <conio.h>

int main()
{
    int a[20], b[20], n, sml=0, lar=0, i, spos, lpos, temp;

    clrscr();

    printf("enter the number of terms: ");

    scanf("%d", &n);

    printf("\nenter the terms; \n");

    for(i=0; i<n; i++)
    {
        scanf("%d", &a[i]);

        b[i]=a[i];
    }

    sml=a[1];

    for(i=0; i<n; i++)
    {
        if(a[i]<=sml)
        {
            sml=a[i];

            spos=i;
        }

        if(lar<=a[i])
        {
            lar=a[i];

            lpos=i;
```

```

    }
}
temp=a[spos];
a[spos]=a[lpos];
a[lpos]=temp;
printf("\nthe array entered are: \n");
for(i=0; i<n; i++)
printf("%d \t", b[i]);
printf("\nthe array after interchanging the largest and the smallest element: \n");
for(i=0; i<n; i++)
printf("%d \t", a[i]);
getch();
return (0);
}

```

Output:

```

enter the number of terms: 5

enter the terms:
2 4 6 7 8

the array entered are:
2      4      6      7      8
the array after interchanging the largest and the smallest element:
8      4      6      7      2

```