

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

```
#include<stdio.h>

#include<conio.h>

void main()

{

int n,i,sum=0;

clrscr();

printf("\nEnter the last number: ");

scanf("%d",&n);

for(i=1;i<=n;i++)

{

sum=sum+(2*i-1)*(2*i-1);

}

printf("The sum of squares of first %d odd numbers is %d",n,sum);

getch();


}
```

OUTPUTS

```
Enter the last number: 3
The sum of squares of first 3 odd numbers is 35
```

```
Enter the last number: 8
The sum of squares of first 8 odd numbers is 680
```

```
Enter the last number: 5
The sum of squares of first 5 odd numbers is 165
```

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

```
#include<stdio.h>
#include<conio.h>
void main()
{
int a[5],max,min,maxpos,minpos,i,temp,n;
clrscr();
printf("\nEnter number of elements in array: ");
scanf("%d",&n);
printf("Enter %d elements:\n",n);
for(i=0;i<n;i++)
scanf("%d",&a[i]);
max=a[0];
min=a[0];
maxpos=0;
minpos=0;
for(i=1;i<n;i++)
{
if(a[i]>max)
{
max=a[i];
maxpos=i;
}
}
```

```
if(a[i]<min)
{

min=a[i];
minpos=i;
}

}
temp=a[maxpos];
a[maxpos]=a[minpos];
a[minpos]=temp;
printf("After interchanging array elememts are: ");
for(i=0;i<n;i++)
printf("%d \t",a[i]);
getch();
}
```

OUTPUTS

```
Enter number of elements in array: 3
Enter 3 elements:
4
9
2
After interchanging array elememts are: 4      2      9
```

```
Enter number of elements in array: 4
```

```
Enter 4 elements:
```

```
3
```

```
4
```

```
2
```

```
1
```

```
After interchanging array elements are: 3      1      2      4
```

```
Enter number of elements in array: 5
```

```
Enter 5 elements:
```

```
1
```

```
7
```

```
5
```

```
9
```

```
8
```

```
After interchanging array elements are: 9      7      5      1      8
```

```
-
```

