1.WAP to check whether the given number is palindrome or not

NO	Rem	Rev	Dup
		0	777
777	7	7	
77	7	77	
7	7	**777**	

No%10
Rev*10+rem
No/10

Program

```
#include <stdio.h>
void main()
{
  int no,rem,rev,dup;
  printf("Enter a Number:");
  scanf("%d",&no);
  dup=no;
  while(no!=0){
   rem=no%10;
   rev=rev*10+rem;
   no=no/10;
  }
  if(rev==dup){
   printf("it is a palidrome number");
  }
  else{
   printf("it is not a palindrome number");
  }

}
```

2.WAP to check whether the given number is Armstrong number or not

No	Rem	Sum	Dup
		0	153
153	3	27	
15	5	152	
1	1	**153**	

Sum = sum+rem*rem*rem

Program

```
#include <stdio.h>
void main()
{
  int no,rem,sum,dup;
  printf("Enter a Number:");
  scanf("%d",&no);
  dup=no;
```

```
  while(no!=0){
   rem=no%10;
   sum=sum+rem*rem*rem;
   no=no/10;
  }
  if(sum==dup){
   printf("it is a armstrong number");
  }
   else{
      printf("it is not a armstrong number");
   }
}
```

For Loop

- it is a control statement
- it is a conditional statement
- it carries initialization, condition and increment / decrement values
- it is a pretest loop
- every for loop will reduce the code nearly 2 lines of while loop

Syntax:

```
For (initialization; condition; increment/decrement)
{
     Body;
}
```

Rules

1.we can increment or decrement the values we need to separate them with comma
2.we can give multiple initialization values also these also need to get separated with comma
3.we can apply multiple conditions but these should be separated with logical operators
4.if you don't give any initialization part or conditional part or increment/decrement part you can omit them

Syntax:

```
-----------
For(i=1,j=5;i<=100&&j<=200;i++,j--)
{
     Body;
}
#include <stdio.h>
void main()
{
  int no,rem,sum,dup;
  printf("Enter a Number:");
  scanf("%d",&no);
  dup=no;
  while(no!=0){
   rem=no%10;
   sum=sum+rem*rem*rem;
   no=no/10;
  }
```

```
  if(sum==dup){
   printf("it is a armstrong number");
  }
   else{
       printf("it is not a armstrong number");
   }
}
```