1. Write a java program to check given number is Krishnamurthy number or not.

sol:

```
class Test
{
public static void main(String[] ar)
{
int n=145,f=1,rem,sum=0;
int temp=n;
while(n>0)
{
rem=n%10;
n=n/10;

for(int i=rem;i>=1;i--)
{
f=f*i;
}
System.out.println(f);
sum=sum+f;
f=1;
}

if(sum==temp)
System.out.println("yes");
else
System.out.println("no");

}
}
```

2. Write a java program to check given number is Sunny number or not.

sol:

```
class Test
{
public static void main(String[] ar)
{
int num=80;
int mul=num+1;
boolean isSunny=false;
for(int i=1;i*i<=num
{
if(i*i==mul)
isSunny=true;
}
if(isSunny=true)
System.out.println("Is sunny");
```

```java
else
System.out.println("Not sunny");
}
}

for(int i=1;i*i<=num+1;i++)
{
isSunny=true;

}System.out.println(i);
}
}
```

3. Write a java program to check given number is Odious or not.

sol:

```java
class Test
{
public static void main(String[] ar)
{
int num=20,temp=num,rem=0,count=0;
while(num>1)
{
rem=num%2;
num=num/2;

if(rem==1)
{
count++;

}}//System.out.println(count++);
if(count%2==0)
System.out.println("Evil");
else
System.out.println("Odious");
}
}
```

4. Write a java program to check given number is Evil or not.

sol:

```java
class Test
{
public static void main(String[] ar)
{
```

```java
int num=20,temp=num,rem=0,count=0;
while(num>1)
{
rem=num%2;
num=num/2;

if(rem==1)
{
count++;

}}//System.out.println(count++);
if(count%2==0)
System.out.println("Evil");
else
System.out.println("Odious");
}
}
```

5. Write a java program to display below loop pattern?
 A
 A B
 A B C
 A B C D

sol:

```java
class Test
{
public static void main(String[] ar)
{
char a='A';
for(int i=1;i<=4;i++)
{
//num=1;
for(int j=1;j<=i;j++)
{
System.out.print(j +" ");
}
System.out.println();
}
}
}
```