**Day 1(3/4/25)**

**Replace 0 by 5**

class Solution {

int convertfive(int num) {

String n=Integer.toString(num);

n=n.replace('0', '5');

return Integer.parseInt(n);

}

}  
  
**Square**

class Main {

public static void main(String[] args) {

int n=3;

for(int i=0;i<n;i++)

{ for(int j=0;j<n;j++) {

System.out.print("\*");

} System.out.println("");

} } }  
  
**Hollow Square**

class Main {

public static void main(String[] args) {

int n=5;

for(int i=0;i<n;i++)

{

for(int j=0;j<n;j++)

{

if (i == 0 || i == n - 1 || j == 0 || j == n - 1) {

System.out.print("\*");

}

else {

System.out.print(" ");

}

}

System.out.println("");

}

}

}

**Hollow square with X cross pattern:**

class Main {

public static void main(String[] args) {

int n=5;

for(int i=0;i<n;i++)

{

for(int j=0;j<n;j++)

{

if (i == 0 || i == n-1 || j == 0 || j == n-1 || i==j || j==n-i-1) {

System.out.print("\* ");

}

else {

System.out.print(" ");

}

}

System.out.println(" ");

}

}

}  
  
**Pyramid**

class Main {

public static void main(String[] args) {

int n=5;

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

for (int j = 1; j <= n - i; j++) {

System.out.print(" ");

}

for (int j = 1; j <= 2 \* i - 1; j++) {

System.out.print("\*");

}

System.out.println();

}

}

}  
 **Butterfly Pattern:**

import java.util.\*;

class Main {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

int n = scanner.nextInt();

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

for (int j = 1; j <= i; j++) {

System.out.print("\*");

}

for (int j = 1; j <= 2 \* (n - i); j++) {

System.out.print(" ");

}

for (int j = 1; j <= i; j++) {

System.out.print("\*");

}

System.out.println();

}

for (int i = n; i >= 1; i--) {

for (int j = 1; j <= i; j++) {

System.out.print("\*");

}

for (int j = 1; j <= 2 \* (n - i); j++) {

System.out.print(" ");

}

for (int j = 1; j <= i; j++) {

System.out.print("\*");

}

System.out.println();

}

scanner.close();

}

}  
***LCM***

import java.util.\*;

class Main {

public static void main(String[] args)

{

int n1=9;

int n2=27;

int n3=8;

int lcm;

if(n1>n2 && n1>n3)

{

lcm=n1;

}

else if(n2>n3)

{

lcm=n2;

}

else

{

lcm=n3;

}

while(true)

{

if(lcm % n1==0 && lcm % n2==0 && lcm % n3==0)

{

System.out.println("LCM="+lcm);

break;

}

lcm++;

}

}

}  
  
**Amicable number**

import java.util.\*;

class Main {

public static void main(String[] args)

{

int n1=220;

int n2=284;

int s1=0;

int s2=0;

for(int i=1;i<n1;i++)

{

if(n1%i==0)

{

s1=s1+i;

}

}

for(int i=1;i<n2;i++)

{

if(n2%i==0)

{

s2=s2+i;

}

}

if(s1==n2 && s2==n1)

{

System.out.println("Amicable number");

}

else

{

System.out.println(" Not Amicable number");

}

}

}

Bethrated number

import java.util.\*;

class Main {

public static void main(String[] args)

{

int n1=48;

int n2=75;

int s1=0;

int s2=0;

for(int i=1;i<n1;i++)

{

if(n1%i==0)

{

s1=s1+i;

}

}

for(int i=1;i<n2;i++)

{

if(n2%i==0)

{

s2=s2+i;

}

}

if(s1+1==n2 && s2+1==n1)

{

System.out.println("Bethrated number");

}

else

{

System.out.println(" Not Bethrated number");

}

}

}