class PyramidStar{

    public static void main(String[] args) {

        int n=5;

        for(int i=0; i<n; i++){

            for(int j=n-i; j>1; j--)

            {

                System.out.print(" ");

            }

            for(int j=0; j<=i; j++ ){

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

            }

            System.out.println();

        }

    }

}

public class Even\_No {

    public static void main(String[] args) {

        for(int i=1; i<=100; i++)

        {

            if(i%2==0)

            {

                System.out.print(i+" ");

            }

        }

    }

}

public class Prime\_No {

    public static void main(String[] args) {

        System.out.println("Prime Number Between 1 to 200 is: ");

        for(int i=1; i<=200; i++)

        {

            int count=0;

            for(int j=i; j>=1; j--)

            {

                if(i%j==0)

                {

                    count++;

                }

            }

            if(count==2){

                System.out.print(i+" ");

            }

        }

    }

}

public class Divisibleby7 {

    public static void main(String[] args) {

        int sum=0;

        for(int i=100; i<=200; i++)

        {

            if(i%7==0){

                sum=sum+i;

            }

        }

        System.out.print("Sum of all integers is :"+sum);

    }

}

public class Min\_Max

{

    public static void main(String[] args)

    {

        int a=10;

        int b=17;

        if(a>b)

        {

            System.out.println("The Maximum of Two Number is:"+a);

            System.out.println("The Minimum of Two Number is:"+b);

        }

        else

        {

            System.out.println("The Maximum of Two Number is:"+b);

            System.out.println("The Minimum of Two Number is:"+a);

        }

    }

}

public class Circle {

    public static void circumCircle(double radius)

    {

        double circumference=2\*3.14\*radius;

        System.out.println("The circumference of circle with radius " + radius + " is " + circumference);

    }

    public static void arcLength(double radius, double angle)

    {

        double arc= (radius\*angle\*3.14)/180;

        System.out.println("The length of arc of circle with radius " +radius+ " and angle " + angle+ " is " + arc);

    }

    public static void main(String[] args)

    {

        circumCircle(10);

        arcLength(10,45);

    }

}

public class Polygon {

    static void area(double n, double length)

    {

        double angle= Math.toRadians(180/n);

        angle=Math.tan(angle);

        double Area=(length\*length\*n)/(4\*angle);

        System.out.println("The area of polygon with "+ n + " sides is "+ Area);

    }

    static void Perimeter(double n, double length)

    {

        double perimeter=n\*length;

        System.out.println("The perimeter of polygon with "+ n + " sides is "+ perimeter);

    }

    public static void main(String[] args)

    {

        area(6, 10);

        Perimeter(6, 10);

    }

}

import java.util.Random;

public class GenerateRandom\_No {

    public static void main(String[] args) {

        Random obj=new Random();

        System.out.println("Random number between 1 to 100");

        int upperbound=101;

        for(int i=1;i<=5;i++){

            System.out.println(i + " Random Integer Between 1 to 100 is: " + obj.nextInt(upperbound));

        }

    }

}

import java.util.Random;

public class RandomAverage

{

    public static void main(String[] args)

    {

        int sum=0;

        Random ran =new Random();

        System.out.println("Random Numbers are: ");

        for(int i=1;i<=8;i++)

        {

          int x = ran.nextInt();

          System.out.println(x);

          sum = sum+x;

        }

        int average = sum/8;

        System.out.println("Average of 8 Random Numbers is: "+ average);

    }

}

import java.util.Random;

public class Grade {

    public static void main(String[] args) {

        Random random = new Random();

        int innerbound=59, upperbound = 100;

        int rand = random.nextInt(innerbound, upperbound);

        System.out.println("Random integer between 60 to 99 is: "+ rand);

        if(rand>=60 && rand<=63){

            System.out.println("The grade is C-");

        }

        if(rand>=64 && rand<=67){

            System.out.println("The grade is C");

        }

        if(rand>=68 && rand<=71){

            System.out.println("The grade is C+");

        }

        if(rand>=72 && rand<=75){

            System.out.println("The grade is B-");

        }

        if(rand>=76 && rand<=79){

            System.out.println("The grade is B");

        }

        if(rand>=80 && rand<=84){

            System.out.println("The grade is B+");

        }

        if(rand>=85 && rand<=89){

            System.out.println("The grade is A-");

        }

        if(rand>=90 && rand<=94){

            System.out.println("The grade is A");

        }

        if(rand>=95 && rand<=99){

            System.out.println("The grade is A+");

        }

    }

}

