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package sinus;
import java.util.Scanner;

public class SINUS {

    static double winkelBogen(double grad)
    {
        return grad*3.141598/180;
    }

    static double potenz(double x, int n)
    {
        double y=1;
        for (int i=0;i<n;i++) y*=x;
        return y;
    }

    static int fakultaet(int n)
    {
        int nfak=1;
        for (int i=n;i>0;i--) nfak*=i;
        return nfak;
    }

    static double sinus(double x, int n)
    {
        int j;
        double summe=0;
        for (int i=0;i<n;i++)
        {
            j=2*i+1;
            summe+=potenz(-1,i)*potenz(x,j)/fakultaet(j);
        }
        return summe;
    }

    public static void main(String[] args) {

        Scanner myscanner = new Scanner(System.in);
        int nGlieD;
        double sinusArgument;
        double ergebnis;

        System.out.println("Bis_zu_welchem_Glied_soll_der_Sinus_entwickelt_werden:");
        nGlieD=myscanner.nextInt();

        System.out.println("Geben_Sie_das_Argument_des_Sinus_in_Grad_ein");
        sinusArgument=myscanner.nextDouble();

        ergebnis=sinus(winkelBogen(sinusArgument),nGlieD);
    }
}

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        System.out.println("Ergebnis:"+ergebnis);  
    }  
}
```