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package july;
import java.util.*;

class Paras{
	int a,b;
	void accept(int a,int b) {
		this.a=a;
		this.b=b;
	}
	int add() {
		return a+b;
	}
	int sub(int a,int b){
		return a-b;
	}
	int mul() {
		return a*b;
	}
	double div() {
		return a/b;
	}
}

class dissarium{
	int n,n1,p,cnt=0,sum=0,f,i,t;
	void accept(int n) {
		this.n=n;
	}
	String display() {
		p=n;
		t=n;
		while(n>0) {
			cnt++;
			n=n/10;
		}
		while(p>0) {
			n1=p%10;
			f=1;
			for(i=1;i<cnt;i++)
				f*=n1;
			sum+=f;
			cnt--;
			n=n/10;
		}
		if(sum==t)
			return (n+" is dissarium");
		else
			return (n+" is not dissarium");
	}
}

class vowel{
	char ch;
	void accept(char c) {
		ch=c;
	}
	void display() {
		if(ch=='a' || ch=='e' || ch=='i' || ch=='o' || ch=='u' ||
ch=='A' || ch=='E' || ch=='I' || ch=='O' || ch=='U' )
			System.out.println("Vowel");
		else
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                System.out.println("Not a Vowel");
        }
}

class prime{
        int n,i,flag=1;
        void accept(int n) {
                this.n=n;
        }
        String display() {
                for(i=0;i<n/2;i++) {
                        if(n%i==0) {
                                flag=0;
                                break;
                        }
                }
                if(flag==1)
                        return "Prime";
                else
                        return "Not Prime";
        }
}

class max{
        int perform(int a,int b) {
                if(a>b)
                        return a;
                else
                        return b;
        }
}

class factorial{
        int perform(int n) {
                int f=1;
                for(int i=n;i>0;i--)
                        f*=i;
                return f;
        }
}

class armstrong{
        int n,sum=0,n1,t;
        void accept(int n) {
                this.n=n;
        }
        void display() {
                t=n;
                while(n>0) {
                        n1=n%10;
                        n=n/10;
                        sum=sum+(n1*n1*n1);
                }
                if(sum==t)
                        System.out.println("Armstrong");
                else
                        System.out.println("Not armstrong");
        }
}

public class July_20 {
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	public static void main(String[] args) {
		Scanner sc=new Scanner(System.in);
		/*Paras p=new Paras();
		System.out.println("Enter a");
		int a=sc.nextInt();
		System.out.println("Enter b");
		int b=sc.nextInt();
		p.accept(a, b);
		System.out.println("Addition "+p.add());
		System.out.println("Subtraction "+p.sub(a,b));
		System.out.println("Multiplication "+p.mul());
		System.out.println("Division "+p.div());
		dissarium d=new dissarium();
		System.out.println("Enter n");
		int n=sc.nextInt();
		d.accept(n);
		System.out.println(d.display());
		char ch;
		System.out.println("Enter character");
		ch=sc.next().charAt(0);
		vowel v=new vowel();
		v.accept(ch);
		v.display();
		System.out.println("Enter n");
		int n=sc.nextInt();
		prime p=new prime();
		p.accept(n);
		p.display();
		System.out.println("Enter a");
		int a=sc.nextInt();
		System.out.println("Enter b");
		int b=sc.nextInt();
		max m=new max();
		System.out.println("Max is "+m.perform(a, b));
		System.out.println("Enter n");
		int n=sc.nextInt();
		factorial f=new factorial();
		System.out.println("factorial "+f.perform(n));
		armstrong a=new armstrong();
		System.out.println("Enter n");
		int n=sc.nextInt();
		a.accept(n);
		a.display();*/

	}

}
```