

```

class One
{
    static int Fib(int n)
    {
        if(n==1||n==2)
            return 1;
        return(Fib(n-1)+Fib(n-2));
    }
    public static void main(String Args[])
    {
        //Fibonacci Series without Recursion.
        int a=1,b=1,i=0,k=0,temp=0;
        int num=7,check=0;

        System.out.println("Fibonacci Series without Recursion:");
        for(i=1;i<=4;i++)
        {
            System.out.print(a+" ");
            System.out.print(b+" ");
            a=a+b;
            b=a+b;
        }
        //End of Fibonacci Series without Recursion.
        System.out.println();
        //Fibonacci Series with Recursion
        System.out.println("Fibonacci Series with Recursion:");
        for(i=1;i<=8;i++)
        {
            System.out.print(Fib(i)+" ");
        }
        //End of Fibonacci Series with Recursion.
        System.out.println();
        //Binary Sort On Array Elements
        int ar[]={23,1,52,16,24,3,20};
        int l = 7;
        System.out.println("Contents of Array Before Sorting:");
        for(int x:ar)
        {
            System.out.print(x+" ");
        }
        System.out.println();
        System.out.println("Contents of Array After Binary Sort in Ascending
Order:");
        for(i=0;i<l;i++)
        {
            for(k=i+1;k<l;k++)
            {
                if(ar[k]<ar[i])
                {
                    temp=ar[k];
                    ar[k]=ar[i];
                    ar[i]=temp;
                }
            }
        }
        for(int x:ar)

```

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{
System.out.print(x+" ");
}
System.out.println();
System.out.println("Contents of Array After Binary Sort in Descending
Order:");
for(i=0;i<l;i++)
{
for(k=i+1;k<l;k++)
{
if(ar[k]>ar[i])
{
temp=ar[k];
ar[k]=ar[i];
ar[i]=temp;
}
}
}
for(int x:ar)
{
System.out.print(x+" ");
}

System.out.println();
System.out.println("to check prime no");
for(i=2;i<=num-1;i++)
{if(num%i==0)
{check=check+1;}
}
if(check==0)
System.out.println(num + "is a prime number");
else
System.out.println(num +"is not a prime number");
}
}

```