

# Java 位元組碼

```
javac Fibonacci.java
```

```
javap -c Fibonacci
```

```
public class Fibonacci {
```

```
    public Fibonacci();
```

Code:

```
    0: aload_0
```

```
    1: invokespecial #1          // Method java/lang/Object."<init>":()V
```

```
    4: return
```

```
    public static int fibonacci(int);
```

Code:

```
    0: iload_0
```

```
    1: iconst_1
```

```
    2: if_icmpgt      7
```

```
    5: iload_0
```

```
    6: ireturn
```

```
    7: iload_0
```

```
    8: iconst_1
```

```
    9: isub
```

```
   10: invokestatic  #7          // Method fibonacci:(I)I
```

```
   13: iload_0
```

```
   14: iconst_2
```

```
   15: isub
```

```
   16: invokestatic  #7          // Method fibonacci:(I)I
```

```
   19: iadd
```

```
   20: ireturn
```

```
    public static void main(java.lang.String[]);
```

Code:

```
    0: bipush      10
```

```
    2: istore_1
```

```
    3: getstatic    #13          // Field java/lang/System.out:Ljava/io/PrintStream;
```

```
    6: iload_1
```

```
    7: invokedynamic #19, 0      // InvokeDynamic #0:makeConcatWithConstants:(I)Ljava/lang/String;
```

```
   12: invokevirtual #23          // Method java/io/PrintStream.println:(Ljava/lang/String;)V
```

```
   15: iconst_0
```

```

16: istore_2
17: iload_2
18: iload_1
19: if_icmpge      43
22: getstatic      #13          // Field java/lang/System.out:Ljava/io/PrintStream;
25: iload_2
26: invokestatic    #7          // Method fibonacci:(I)I
29: invokedynamic   #29, 0      // InvokeDynamic #1:makeConcatWithConstants:(I)Ljava/lang/String;
34: invokevirtual   #30          // Method java/io/PrintStream.print:(Ljava/lang/String;)V
37: iinc            2, 1
40: goto            17
43: getstatic      #13          // Field java/lang/System.out:Ljava/io/PrintStream;
46: invokevirtual   #33          // Method java/io/PrintStream.println:()V
49: return
}

```