

```
D:\>javac Recursion.java
```

```
D:\>java Recursion
```

```
Choose an operation:
```

1. Factorial
2. Fibonacci
3. Power
4. GCD

```
1
```

```
Enter the number:
```

```
3
```

```
3 factorial equals 6
```

```
D:\>java Recursion
```

```
Choose an operation:
```

1. Factorial
2. Fibonacci
3. Power
4. GCD

```
1
```

```
Enter the number:
```

```
-1
```

```
Exception in thread "main" java.lang.IllegalArgumentException  
    at Recursion.factorial(Recursion.java:71)  
    at Recursion.main(Recursion.java:31)
```

```
D:\>java Recursion
```

```
Choose an operation:
```

1. Factorial
2. Fibonacci
3. Power
4. GCD

```
2
```

```
Enter the number:
```

```
9
```

```
The 9-th fibonacci number is 34
```

```
D:\>java Recursion
```

```
Choose an operation:
```

1. Factorial
2. Fibonacci
3. Power
4. GCD

```
3
```

```
Enter the base number:
```

```
2
```

```
Enter the power factor:
```

```
3
```

```
2 to the power 3 equals 8
```

```
D:\>java Recursion
```

```
Choose an operation:
```

1. Factorial
2. Fibonacci
3. Power
4. GCD

```
5
```

```
Invalid Choice
```