

## Discussion Section 1 (Thomas Feng, 08/28/2008)

```
public class HelloWorld {  
  
    public static void main(String[] args) {  
  
        System.out.println("Hello World!");  
  
    }  
  
}
```

```
$ javac HelloWorld.java  
$ java HelloWorld  
Hello World!
```

---

```
public class Printer {  
  
    public static void main(String[] args) {  
  
        for (String arg : args)  
  
            System.out.print(arg + " ");  
  
        System.out.println();  
  
    }  
  
}
```

```
$ javac Printer.java  
$ java Printer a b c  
a b c
```

```

public class Prime {
    public static void main(String[] args) {
        if (args.length != 1) {
            System.err.println("Syntax: java Prime [number]");
            return;
        }
        int input = Integer.parseInt(args[0]);
        if (isPrime(input))
            System.out.println("Yes.");
        else
            System.out.println("No.");
    }
    public static boolean isPrime(int num) {
        for (int i = 2; i < num; i++)
            if (num % i == 0)
                return false;
        return true;
    }
}

```

```

$ javac Prime.java
$ java Prime 2
Yes.
$ java Prime 5
Yes.
$ java Prime 4
No.

```

---

Some useful operators:

binary: + - \* / % == != > < >= <= && ||  
 unary: ++ -- - !

How to improve the last example?

- 1) Do we really need to loop (with i) from 2 to num?
- 2) Do we need to check with i that is not prime itself?
- 3) How to return all such prime numbers p such that p <= num?