

Week 4

FindMinMax

```
import java.io.*;
import java.util.*;

public class FindMinMax {
    public static void main(String args[]) {
        int num;
        int max;
        int min;
        Scanner s = new Scanner(System.in);
        System.out.print("Enter an integer: ");
        max = s.nextInt();
        min = max;
        System.out.print("Enter an integer or 0 to quit: ");
        num = s.nextInt();
        while (num != 0) {
            if (num > max) {
                max = num;
            }else if (num < min) {
                min = num;
            }
            System.out.print("Enter an integer or 0 to quit: ");
            num = s.nextInt();
        }
        System.out.printf("The maximum number entered was %d.\n", max);
        System.out.printf("The minimum number entered was %d.\n", min);
    }
}
```

Boolean Algebra

- Proposition
 - A statement that is either true or false
- Logical connectives
 - && (Conjunction)
 - || (Disjunction)
 - ! (Negation)
 -

And Truth Table

A	B	A && B
True	True	True
True	False	False
False	True	False
False	False	False

OR Truth Table

A	B	A B
True	True	True
True	False	True
False	True	True
False	False	False

NOT Truth Table

A	!A
True	False
False	True

Truth Table for $A \ \&\& \ (B \ || \ C)$

A	B	C	$B \ \ C$	$A \ \&\& \ (B \ \ C)$
True	True	True	True	True
True	True	False	True	True
True	False	True	True	True
True	False	False	False	False
False	True	True	True	False
False	True	False	True	False
False	False	True	True	False
False	False	False	False	False