

JAVA METHODS

A. System Class (I/O)

| Method | Description |
|-----------------------------|------------------------|
| System.out.println() | Prints with newline |
| System.out.print() | Prints without newline |
| System.exit(0) | Exits the program |

B. Math Class

| Method | Description |
|-----------------------|---|
| Math.max(a, b) | Returns the maximum |
| Math.min(a, b) | Returns the minimum |
| Math.pow(a, b) | Returns a^b |
| Math.sqrt(x) | Square root |
| Math.abs(x) | Absolute value |
| Math.round(x) | Rounds to nearest integer |
| Math.random() | Returns a random double from 0.0 to 1.0 |



C. String Class

| Method | Description |
|------------------------------|----------------------------|
| length() | Returns length |
| charAt(i) | Returns character at index |
| substring(a, b) | Substring from a to b-1 |
| toLowerCase() | Converts to lowercase |
| toUpperCase() | Converts to uppercase |
| equals(str) | Checks equality |
| equalsIgnoreCase(str) | Equality ignoring case |
| contains(str) | Checks if substring exists |
| replace(old, new) | Replaces characters |
| trim() | Removes spaces |
| split(delimiter) | Splits into array |



D. Character Class

| Method | Description |
|-----------------------|-----------------------|
| isDigit(c) | Checks if digit |
| isLetter(c) | Checks if letter |
| isUpperCase(c) | Uppercase check |
| isLowerCase(c) | Lowercase check |
| toUpperCase(c) | Converts to uppercase |
| toLowerCase(c) | Converts to lowercase |



E. Arrays Class (java.util.Arrays)

| Method | Description |
|-------------------------------|--------------------|
| sort(arr) | Sorts array |
| binarySearch(arr, key) | Searches |
| copyOf(arr, newLength) | Copies array |
| equals(arr1, arr2) | Compares arrays |
| fill(arr, value) | Fills with value |
| toString(arr) | Converts to string |



F. Collections Class (java.util.Collections)

| Method | Description |
|----------------------|---------------|
| sort(list) | Sorts a list |
| reverse(list) | Reverses list |
| shuffle(list) | Random order |
| max(list) | Max value |
| min(list) | Min value |