

CSE 142 Midterm Cheat Sheet

```
for (initialization; test; update) {
    statement(s);
    ...
}

if (test) {
    statement(s);
} else if (test) {
    statement(s);
} else {
    statement(s);
}
```

```
while (condition) {
    statement(s);
}

public static type name(parameters) {
    statement(s);
    ...
    return expression;
}
```

Math Method	Description
Math.abs(<i>value</i>)	absolute value
Math.min(<i>v1</i> , <i>v2</i>)	smaller of two values
Math.max(<i>v1</i> , <i>v2</i>)	larger of two values
Math.round(<i>value</i>)	nearest whole number
Math.sqrt(<i>value</i>)	square root
Math.pow(<i>b</i> , <i>e</i>)	base to the exponent power

Scanner Method	Description
nextInt()	reads/returns input as int
next()	reads/returns input as String

Random Method	Description
nextInt(<i>max</i>)	random integer from 0 to <i>max</i> -1 (both inclusive)

String Method	Description
contains(<i>str</i>)	true if this string contains the other's characters inside it
endsWith(<i>str</i>), startsWith(<i>str</i>)	true if this string starts/ends with the other's characters
equals(<i>str</i>)	true if this string is the same as <i>str</i>
equalsIgnoreCase(<i>str</i>)	true if this string is the same as <i>str</i> , ignoring capitalization
indexOf(<i>str</i>)	index in this string where given string begins (-1 if not found)
length()	number of characters in this string
replace(<i>str1</i> , <i>str2</i>)	replace all occurrences in this string of <i>str1</i> with <i>str2</i>
substring(<i>i</i> , <i>j</i>)	characters in this string from index <i>i</i> (inclusive) to <i>j</i> (exclusive)
toLowerCase(), toUpperCase()	a new string with all lowercase or uppercase letters
charAt(<i>i</i>)	returns char at index <i>i</i>

type **name** = **value**; // variable declaration and initialization

Type **objectName** = new **Type**(**parameters**); // object construction