

CSE 142 Midterm Cheat Sheet

Syntax templates

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

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

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

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

while (condition) {
    statement(s);
}

public static void name(parameters) {
    statement(s);
}

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

Math Method	Description
Math.abs(value)	absolute value
Math.min(v1, v2)	smaller of two values
Math.max(v1, v2)	larger of two values
Math.round(value)	nearest whole number
Math.pow(b, e)	b to the e power

Random Method	Description
nextInt(max)	random integer from 0 to max-1

Construction Examples

```
Random r = new Random();
Scanner console = new Scanner(System.in);
```

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

Scanner Method	Description
nextInt()	read/return token as int
nextDouble()	read/return token as double
next()	read/return token as string

Operator	Description	Operator	Description
<	less than	!=	not equal
<=	less than or equal		
>	greater than	&&	logical and
>=	greater or equal		logical or
==	equal	!	logical not