Cheat Sheet

Additional Java Commands & Concepts

random(number)
- Selects a random value between 0 and the number

random(starting number, ending number)
- Selects a random value between the starting number and the ending number

int(number)
- Converts a float to an integer

float(number)
- Converts an integer to a float.

abs(number)
- Return the positive value of a number.

radians(degree)
- Converts an angle in degrees to the equivalent angle in radian measure.

  i.e. 0° = 0 radians, 90° = HALF_PI, 180° = PI, 360° = TWO_PI

cos(radians)
- Determines the “cosine” or x portion of an angle.

sin(radians)
- Determines the “sine” or y portion of an angle.

mouseX
- Returns the x value of a mouse or trackpad.

mouseY
- Returns the y value of a mouse or trackpad.

mousePressed
- Returns a true Boolean when the mouse or trackpad is clicked.

cursor( )
- Displays cursor on the output window.

noCursor( )
- Hides the cursor on the output window.

delay(time)
- pauses the program for time in milliseconds.

void keyPressed( )
- Accepts input from the keyboard upon pressing a key.

void keyReleased( )
- Accepts input from the keyboard upon releasing a key.

Conditional “If Then” Statements

```
if (boolean) {
        then action
} else if (boolean) {
        then 2nd action
} else {
        then 3rd action
}
```

```
if (boolean) {
        then action
else {
        then 2nd action
}
```

```
if (boolean) {
        then action
}
```

Arrow Keys
- Using the arrow keys requires using a **void keyPressed( )** module and a **keyCode.**
- The four boolean conditionals for the “if then” are:

keyCode == UP **keyCode == DOWN** **keyCode == LEFT** **keyCode == RIGHT**

map(input, min input, max input, min output, max output);
- Scales the input value to a proportional output value.

    i.e. A clock may have the command map(seconds, 0 seconds, 60 seconds, 0°, 360°) except it would be entered correctly as map(second( ), 0, 60, 0, TWO_PI); because Processing using Radian Measure and not Degrees.

millis( )
- Displays the current millisecond.

second( )
- Displays the current second.

minute( )
- Displays the current minute.

hour( )
- Displays the current hour.

day( )
- Displays the current day.

month( )
- Displays the current month.

year( )
- Displays the current year.

nf(number, digits)
- Determines the number of digits to be displayed so time can be correctly displayed.

    i.e. To display a time such as 7:02:48 as opposed to 7:2:48 the additional command nf(minutes( ), 2) must be inserted in the code to run correctly.