

# Cheat Sheet

## Basic Java Commands & Concepts

### Naming Conventions

1. Names of programs start with a capital letter
2. Names of variables and functions are lower case letters
3. No spaces between words but each subsequent words begins with a capital letter is called "Camel Case" or using underscores between words (older form or unix and MS based) is "Snake Case."

### Number Conventions

Numbers start at 0 (for example first ten digits are 0,1,2,3,4,5,6,7,8,9)  
Based on 8-Bit architecture of  $2^8$  (i.e 256 values) ranging from 0 to 255  
0 is full off, 255 is full on, 63 is the first quarter, 127 is half and 191 is the three quarter value

### Output Window

```
size( width, height );  
background( colour );
```

### Colour

0 is Black, 255 is White, Everything in between is a Shade of Grey  
Red, Green, Blue and Additive Light Colours (Cyan, Magenta, Yellow)  
Opacity effects, append 0 (Transparent) to 255 (Opaque) to colour value or black/white value

Lines and Borders of Shapes

```
stroke( );  
noStroke( );  
strokeWeight( );
```

Filling With Colour

```
fill( );  
noFill( );
```

### Shapes

```
point( x, y );  
line( x1, y1, x2, y2 );  
rect( x, y, width, height );  
note: x, y represent the top left corner of the rectangle  
appending another value (or argument) rounds corners
```

```
ellipse( x, y, width, height );  
note: x, y represent the centre of the ellipse
```

```
triangle( x1, y1, x2, y2, x3, y3 );  
quad( x1, y1, x2, y2, x3, y3, x4, y4 );
```

### Text

```
text( "Hello World", x, y );  
textSize( );
```

### Variables

int	x = 0;	integers don't have decimals
float	y = 1.23;	floats have decimals
boolean	play = true;	either True or False
char	initial = "H"	
String	name = "Kevin";	strings of characters are words

## Conditional Statements

if ( conditional )	equal to	==	and	&&
{	not equal to	!=	or	
	greater than	>=		
}	less than	<=		

## Loops

```
for( int i = 0; i < number of loops; i = i + 1 );  
{  
  
}
```

note: shorthand version of “i = i + 1”  
is “i++”

## Modules

### Key Modules

void setup() {  }	void draw() {  }
----------------------------	---------------------------

### Common Modules

void keyPressed() { int k = keyCode; if ( k == LEFT) { } }	void keyReleased() void mousePressed()
--	---

You can also create a module for anything else that you would like to use but you need to “call” the module in your program (usually in the void draw).

## References:

[processing.org](http://processing.org)

[coding-club.weebly.com](http://coding-club.weebly.com)