# Cheat Sheet

## Shapes
- rect(x, y, w, h)
  - Draw a rectangle
- ellipse(x, y, w, h)
  - Draw an ellipse
- triangle(x1, y1, x2, y2, x3, y3)
  - Draw a triangle
- line(x1, y1, x2, y2)
  - Draw a line
- point(x, y)
  - Draw a point
- arc(x, y, w, h, start, stop)
  - Draw an arc
- bezier(x1, y1, cx1, cy1, cx2, cy2, x2, y2)
  - Draw a bezier curve
- quad(x1, y1, x2, y2, x3, y3, x4, y4)
  - Draw any quadrilateral
- image(image, x, y)
  - Display an image

## Coloring
- background(r, g, b)
  - Set the background color
- fill(r, g, b)
  - Set the fill color for shapes
- noFill()
  - Turn off fill for shapes
- stroke(r, g, b)
  - Set the outline color for shapes
- strokeWeight(thickness)
  - Change the thickness of lines and outlines
- noStroke()
  - Turn off outlines for shapes
- color(r, g, b)
  - Store a color in a variable

## Text
- text(text, x, y)
  - Draw some text
- textFont(font, size)
  - Changes the font of text
- textSize(size)
  - Change the size of text

## Mouse
- mouseX, mouseY
  - Using the coordinates of the mouse
- mouseIsPressed
  - True if mouse is being pressed, false otherwise
- mouseClicked = function()
  - Called when mouse is clicked
- mousePressed = function()
  - Called when mouse is pressed
- mouseMoved = function()
  - Called when mouse is moved
- mouseReleased = function()
  - Called when mouse is released

## Keyboard
- keyPressed = function()
  - Called when a key is pressed
- keyCode
  - Number representing which key is pressed
- keyIsPressed
  - True if a key is being pressed, false otherwise

## Math
- random(low, high)
  - Generate a random number
- dist(x1, y1, x2, y2)
  - Calculates the distance between two points
- abs(num)
  - Take the absolute value of a number
- log(num)
  - Take the logarithm of a number
- pow(num, exponent)
  - Raise a number to an exponent
- cos(deg)
  - Take the cosine of an angle
- sin(deg)
  - Take the sine of an angle
- tan(deg)
  - Take the tangent of an angle

## Programming Syntax
- drawWinston = function()
  - Define a new function
- if (x < 20) {
  - Only run code if a certain condition is true
- while (x < 250) {
  - Only run code while a certain condition is true
- for (var i = 0; i < 8; i++) {
  - Repeat code a fixed number of times
- var array = [0, 1, 2, 3, 4];
  - Make an array of 5 numbers
- debug(arg1, arg2, ...)
  - Print to your browser’s developer console