```
mostCommon[2] = m;
window.onload = init; // Wait for the page to load before we begin animation 38 /*mySort
var canvas;
                                                                                                                                                                            if (tiesArray[m] < tiesArray[leastCommon[2]] | | m === 0){
var ctx;// This is a better name for a global variable
                                                                                                                                                                             leastCommon[2] = m;
                                                                                          var frontCount = 0;
                                                                                          var backCount = array.length-1;
function init(){
                                                                                                                                                                            var x = tiesArray[m];
                                                                                          console.time("Time Taken To Complete Sorting");
                                                                                                                                                                            var y = canvas.height/2+100+m*10;
                                                                                          for(var i = 0; i < array.length/2; i++){
  canvas = document.getElementById('cnv');
                                                                                                                                                                            ctx.rect(canvas.width/2-100, y, x, 5);
                                                                                             for(var j = frontCount; j < backCount; j++){</pre>
                                                                                                                                                                            ctx.fillStyle = 'rgb(0, 0, 0)';
  canvas.width = window.innerWidth;
                                                                                               compares##;
                                                                                                                                                                            ctx.fill();
                                                                                               if(array[j][11] > array[j+1][11] | array[j+1][11] === null){
  canvas.height = window.innerHeight;
                                                                                                                                                                            if (m === 0){
                                                                                                 var temp = array[j];
  ctx = canvas.getContext('2d'); // This is the context
                                                                                                                                                                             ctx.fillText("No Tie", canvas.width/2-150, y+5);
                                                                                                 array[j] = array[j+1];
                                                                                                                                                                            } else if (m === tiesArray.length-1){
  var array = getJSON();
                                                                                                                                                                             ctx.fillText((m+1), canvas.width/2-115, y+5);
                                                                                                 array[j+1] = temp;
                                                                                                 swaps++;
                                                                                                                                                                            if (doListeners === 0){
function getJSON() {
                                                                                                                                                                              addListener(canvas.width/2-100, y+5, canvas.width/2-100+x, y, tiesArray, firstFiveArray, megaArray, tiesArray, m, mostCommon, leastCommon);
 var array = [];
                                                                                            backCount--;
  var firstFiveTotals = [];
                                                                                             for(var k = backCount; k > frontCount; k--){
  var megaTotals = [];
                                                                                               compares##;
  var tiesTotals = [];
                                                                                                                                                                          ctx.font = "10px Georgia";
                                                                                               if(array[k][11] < array[k-1][11] | array[k][11] === null){
  var mostCommon = [];
                                                                                                                                                                          ctx.beginPath();
                                                                                                 var temp = array[k];
  var leastCommon = [];
                                                                                                                                                                          ctx.fillText("Most Common: " + (mostCommon[0]+1) + ", " + (firstFiveArray[mostCommon[0]]) + " times", 450, canvas.height/2-180);
                                                                                                 array[k] = array[k-1];
  for (var i = 0; i < 75; i++){
                                                                                                                                                                          ctx.fillText("Most Common: " + (mostCommon[1]+1) + ", " + (megaArray[mostCommon[1]]) + " times", 450, canvas.height/2+230);
                                                                                                 array[k-1] = temp;
   firstFiveTotals[i] = 0;
                                                                                                                                                                          if (mostCommon[2] === 0){
                                                                                                                                                                           ctx.fillText("Most Common: " + "No Tie" + ", " + (tiesArray[mostCommon[2]]) + " times", 900, canvas.height/2+60);
                                                                                                 swaps++;
                                                                                                                                                                          } else {
  for (var i = 0; i < 52; i++){
                                                                                                                                                                            ctx.fillText("Most Common: " + (mostCommon[2]) + ", " + (tiesArray[mostCommon[2]]) + " times", 900, canvas.height/2+60);
    megaTotals[i] = 0;
                                                                                             frontCount++;
                                                                                                                                                                          ctx.fillText("Least Common: " + (leastCommon[0]+1) + ", " + (firstFiveArray[leastCommon[0]]) + " times", 450, canvas.height/2-170);
  for (var i = 0; i < 5; i++){
                                                                                                                                                                          ctx.fillText("Least Common: " + (leastCommon[1]+1) + ", " + (megaArray[leastCommon[1]]) + " times", 450, canvas.height/2+240);
                                                                                          console.timeEnd("Time Taken To Complete Sorting");
   tiesTotals[i] = 0;
                                                                                                                                                                          if (leastCommon[2] === 0){
                                                                                                                                                                           ctx.fillText("Least Common: " + "No Tie" + ", " + (tiesArray[leastCommon[2]]) + " times", 900, canvas.height/2+70);
                                                                                            *bubbleSort
  var compares = 0;
  var swaps = 0;
                                                                                                                                                                            ctx.fillText("Least Common: " + (leastCommon[2]+1) + ", " + (tiesArray[leastCommon[2]]) + " times", 900, canvas.height/2+70);
  $.getJSON("data.json", function(json) {
    for (var i = 0; i < json.data.length; i++){
                                                                                                                                                                        function addListener(x, y, otherX, otherY, thisArray, firstFiveArray, megaArray, tiesArray, m, mostCommon, leastCommon){
      array[i] = json.data[i];
                                                                                                                                                                         canvas.addEventListener('mousedown', function(event) {
                                                                                                                                                                           if(e if(event.pageX > x && event.pageX < otherX && event.pageY < y && event.pageY > otherY){
                                                                                                                                                                                           ctx.beginPath();
                                                                                                                                                                                           ctx.rect(event.pageX, event.pageY-25, 80, 25);
                                                                                                                                                                                           ctx.fillStyle = 'rgb(255, 255, 255)';
                                                                                                                                                                                           ctx.fill();
                                                                                                                                                                                           ctx.strokeStyle = 'rgb(255, 255, 255)';
                                                                                                                                                                                           ctx.stroke();
                                                                                                                                                                                           ctx.fillStyle = 'rgb(0, 0, 0)';
                                                                                     for (var i = 0; i < array.length; i++){
                                                                                                                                                                                           ctx.strokeStyle = 'rgb(0, 0, 0)';
                                                                                      for(var j = 0; j < 15; j=j+3){
                                                                                        firstFiveTotals[parseInt(array[i][9].substring(j, j+2))-1]++;
                                                                                                                                                                                            if(thisArray === tiesArray){
                                                                                                                                                                                             if (m === 0){
                                                                                                                                                                                               ctx.fillText("Value: No Tie", event.pageX, event.pageY-15);
                                                                                      megaTotals[parseInt(array[i][10])-1]++;
                                                                                                                                                                                             } else {
                                                                                      if (array[i][11] === null){
                                                                                                                                                                                               ctx.fillText("Value: " + (m+1), event.pageX, event.pageY-15);
                                                                                        tiesTotals[0]++;
                                                                                      } else {
                                                                                                                                                                                            } else {
                                                                                        tiesTotals[parseInt(array[i][11])-1]++;
                                                                                                                                                                                             ctx.fillText("Number: " + (m+1), event.pageX, event.pageY-15);
                                                                                                                                                                                           ctx.fillText("Occurences: " + thisArray[m], event.pageX, event.pageY-5);
                                                                                    console.log("Number of comparisons made: " + compares + " comparisons");
                                                                                                                                                                                       }, false);
                                                                                    console.log("Number of swaps made: " + swaps + " swaps");
                                                                                                                                                                                        canvas.addEventListener('mouseup', function(event) {
                                                                                                                                                                                         if(event.pageX > x && event.pageX < otherX && event.pageY < y && event.pageY > otherY){
                                                                                    display(firstFiveTotals, megaTotals, tiesTotals, mostCommon, leastCommon, 0);
                                                                                                                                                                                           ctx.beginPath();
                                                                                  });
                                                                                                                                                                                           ctx.clearRect(0, 0, canvas.width, canvas.height);
                                                                                                                                                                                           display(firstFiveArray, megaArray, tiesArray, mostCommon, leastCommon, 1);
                                                                           function display(firstFiveArray, megaArray, tiesArray, mostCommon, leastCommon, doListeners){
                                                                                                                                                                                       }, false);
                                                                                  ctx.beginPath();
                                                                                  ctx.font = "80px Georgia";
                                                                                  ctx.fillText("Trends in Winning", 900, 150);
                                                                                  ctx.fillText("Lottery Numbers", 935, 225);
                                                                                  ctx.font = "40px Georgia";
                                                                                  ctx.fillText("First 5 Numbers", 300, canvas.height/2-200);
                                                                                  ctx.fillText("Jackpot Numbers", 300, canvas.height/2+210);
                                                                                  ctx.fillText("Tie Numbers", 1050, canvas.height/2+75);
                                                                                  ctx.font = "20px Georgia";
                                                                                  ctx.fillText("(Higher Number of Occurences = Chosen by People More Often)", 955, 265)
                                                                                  ctx.font = "15px Georgia";
   for (var m = 0; m < firstFiveArray.length; m++){
     if (firstFiveArray[m] > firstFiveArray[mostCommon[0]] || m === 0){
       mostCommon[0] = m;
```

if (firstFiveArray[m] < firstFiveArray[leastCommon[0]] || m === 0){</pre>

addListener(x, canvas.height/2, x+5, canvas.height/2-y, firstFiveArray, firstFiveArray, megaArray, tiesArray, m, mostCommon, leastCommon);

addListener(x, canvas.height/2+300, x+5, canvas.height/2+300-y, megaArray, firstFiveArray, megaArray, tiesArray, m, mostCommon, leastCommon);

leastCommon[0] = m;

var y = firstFiveArray[m];

if (doListeners === 0){

mostCommon[1] = m;

leastCommon[1] = m;

var y = megaArray[m];

if (doListeners === 0){

var x = m*10+200;

ctx.fill();

ctx.rect(x, canvas.height/2, 5, -y);

for (var m = 0; m < megaArray.length; m++){

ctx.rect(x, canvas.height/2+300, 5, -y);

if (m === 0 || m === megaArray.length-1){

for (var m = 0; m < tiesArray.length; m++){

ctx.fillText((m+1), x-2.5, canvas.height/2+310);

if (tiesArray[m] > tiesArray[mostCommon[2]] || m === 0){

ctx.fillStyle = 'rgb(0, 0, 0)';

if (m === 0 || m === firstFiveArray.length-1){

ctx.fillText((m+1), x-2.5, canvas.height/2+10);

if (megaArray[m] > megaArray[mostCommon[1]] || m === 0){

if (megaArray[m] < megaArray[leastCommon[1]] | m === 0){</pre>

ctx.fillStyle = 'rgb(0, 0, 0)';

var x = m*10+100;

ctx.fill();

Zoom In Using Ctrl +

Follow Numbers For Proper Progression