Graphics Lab Answer Sheet.

Please complete this answer sheet and turn it in at the beginning of class on the due date posted in LEARN.

Part A

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| Question | Answer |
| 1  (7 pts) | The array in column y dictates how the letters/numbers fall. For example, the things fall down the screen until it reaches the height. Also it tells what the letter/number is going to be by the line c.fillText(char, I\*pixelsPerColumn, column[i]); |
| 2  (7 pts) | var columnY = [];  for (var i=0; i<numberOfColumns; i++) {  columnY[i] = randomInt(0, height); |
| 3  (7 pts) | columnY[i] = randomInt(0, height);  columnY[i] = i; |
| 4  (7 pts) | cfillStyle: “rgba(0,0,0,0.05)”;  cfillStyle: “rgba(0,0,0,1)”; |
| 5  (7 pts) | var characters = "0123456789ABCDEFGHIJKLMNOPQRSTUVWXYZ!@#$%^&\*";  to  var characters = "0123456789"; |
| 6  (7 pts) | columnY[i] += pixelsPerColumn;  if (columnY[i] > height)  columnY[i] -= pixelsPerColumn;  if (columnY[i] < 0) |

Part B

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| 7  (7pts) | The stars approach the side of the screen at an  angle, and reset. |
| 8  (7 pts) | c.fillStyle = “#000”;  c.fillStyle = “rgba(0,0,0,0.05)”; |
| 9  (14 pts) | var characters = “;ABCDEFGHIJKLMNOPQRSTUVWXYZ”;;  c.font = “12px Courier”;  function resetStar(star) {  star.x = width/2;  star.y = height/2;  var r = randomInt(0, characters.length);  var speed = randomFloat(.1, 5);  var angle = randomFloat(0, 2\*Math.PI);  star.dx = speed \* Math.cos(angle);  star.dy = speed \* Math.sin(angle);  star.brightness = randomFloat(2, 5);  }  var stars = [];  for (var i=0; i&lt;500; i++) {  var star = {};  resetStar(star);  stars.push(star);  }  function step() {  c.fillStyle = “rgba(0,0,0,0.05)”;  c.fillRect(0, 0, width, height);  c.lineWidth = 2;  for (var i=0; i&lt;stars.length; i++) {  var star = stars[i];  //c.fillStyle = “;#ffffff”;;  //c.beginPath();  //c.moveTo(star.x, star.y);  star.x += star.dx;  star.y += star.dy;  star.brightness = Math.min(star.brightness\*1.05, 255);  // c.lineTo(star.x, star.y);  var b = Math.round(star.brightness);  c.fillStyle= &quot;rgb(&quot; + b + &quot;,&quot; + b + &quot;,&quot; + b + &quot;)&quot;;  var r = randomInt(0, characters.length);  var char = characters.substring(r, r+1);  c.fillText(char, star.x, star.y);  //c.stroke();  //c.closePath();  star.dx \*= 1.05;  star.dy \*= 1.05;  if (star.x < 0 || star.x > width || star.y < 0 || star.y > height) {  resetStar(star);  }  }  }  loop(step, 20); |