# 598.https://stackoverflow.com/questions/69458961/java-script-random-number-generator-issue

**T:**Java Script Random Number Generator Issue

**Q:**I have the code to generate a random number and it seemes to be cycling back and forth between 1 or 2.  
  
const isDnaUnique = (\_DnaList = [], \_dna = []) => { let foundDna =\_DnaList.find((i) => i.join("") === \_dna.join("")); return foundDna == undefined ? true : false; };const createDna = (\_races, \_race) => { let randNum = []; \_races[\_race].layers.forEach((layer) => { let randElementNum = Math.floor(Math.random() \* 100) + 1; let num = 0; layer.elements.forEach((element) => { if (randElementNum >= 100 - element.weight) { num = element.id; } }); randNum.push(num); }); return randNum; };  
  
WARN: THIS PARAGRAPH CONTAINS TAG: [CODE]   
  
My issue is the random number generator keeps only returning to values instead of cycling through all of them.  
  
 { name: "Eyes", elements: [ { id: 0, name: "E1", path: `${dir}/3-eyes/E1.png`, weight: 25, }, { id: 1, name: "E2", path: `${dir}/3-eyes/E2.png`, weight: 25, }, { id: 2, name: "E3", path: `${dir}/3-eyes/E3.png`, weight: 25, }, { id: 3, name: "E4", path: `${dir}/3-eyes/E4.png`, weight: 25, }, ], position: { x: 0, y: 0 }, size: { width: width, height: height }, },  
  
WARN: THIS PARAGRAPH CONTAINS TAG: [CODE]

**C1:**Javascript is not Java.

**C2:**Where is there Java code here?

**C3:**You're not returning random numbers. You're returning the element ID of the last element that meets your criteria. Note that your randElementNum will range from 1 to 100, so only 1% of the numbers will be ">= 100".

**C4:**@TimRoberts I also included the second part of my code. The number returned seems to be only ever return 2 of the four elements. Not sure why.

1 **Answer**

**A1:**Your results are exactly what I would expect. Let's take a look.  
  
Your randElementNum is going to be a number from 1 to 100. All four of your elements have weight of 25. You are running through the loop for all of the elements every time. So, if the number is less than 75 (100-25), then the if statement never fires, and num will be 0. If the number is greater than or equal to 75, then the if statement fires all four times, and you'll end up with element #3. There are no other possibilities.  
  
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The next big problem is that "forEach" is the wrong tool. I've shown you how to make it work below, but you really should be using an old-fashioned "for" loop, so you can break the loop once you find an answer.  
  
I'm not sure what effect you were trying for, but this is certainly not what you intended. Based on the name weight, were you trying to have each element get picked 25% of the time? You can do that with something like this:  
  
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const createDna = () => { let randElementNum = Math.floor(Math.random() \* 100); console.log( randElementNum ); let num = -1; layer.elements.forEach((element) => { if( num >= 0 ) return; if (randElementNum < element.weight) { num = element.id; return; } randElementNum -= element.weight; }); return num;};  
  
WARN: THIS PARAGRAPH CONTAINS TAG: [CODE]

**C1:**I added this and some how the chosen ID seems to alternate between only 0 and 3 with 1 and 2 never being chosen.

**C2:**As I've noted in my edit, the big problem is that forEach is the wrong tool. It ALWAYS visits each node in the list. You should be using an old-fashioned for loop so you can break out once you have an answer.