**CS 20 Web Programming  
Assignment: Lottery Simulator**

## Deliverables

PDF file containing all code and the URL of the page online

## Objectives

## Work with arrays and calculations using Javascript

**Summary**

Your task is to simulate the Mass Lottery “Lucky for Life” game.  Here is a link for more information: <https://www.masslottery.com/games/lottery/lucky-for-life.html>

Note you do NOT need to follow the link to do the assignment.

## Tasks

Use Math.random() to choose a random set of 5 **unique** numbers**.**The numbers should range from 1 to 48. Store the numbers in an array. This is your “pick”.

Get and store one more random number that we will call the “Lucky Ball” that ranges from 1 to 18.

Sort the 5 numbers in the array.

Now you need to see if the “pick” would have won any money!

Use this set of numbers as the winning combination.

Text, application

Description automatically generated with medium confidence

Compare your “pick” to the winning numbers to see how many matched.

Also, check if the lucky ball matched.

Use the table below to determine the payout:

|  |  |  |
| --- | --- | --- |
| **Match** |  | **Prize** |
| 5 + Lucky Ball |  | $7,000 a WEEK for LIFE |
| 5 |  | $25,000 a YEAR for LIFE |
| 4 + Lucky Ball |  | $5,000 |
| 4 |  | $200 |
| 3 + Lucky Ball |  | $150 |
| 3 |  | $20 |
| 2 + Lucky Ball |  | $25 |
| 2 |  | $3 |
| 1 + Lucky Ball |  | $6 |
| 0 + Lucky Ball |  | $4 |

**Display the following on the page:**

* Your “pick” before sorting
* You “pick” after sorting
* The lucky ball value
* The winning numbers and winning lucky ball
* How many of the “pick” matched the winning numbers
* Whether the lucky ball matched
* What the payout would be for your pick

## Rubric

All deliverables provided – 10 points

Page runs to spec – 50 points

Quality of code - 25 points

Creativity/effort – 15 points

**Example run:**

My pick: 30 16 13 12 10 lucky 3  
My pick sorted: 10 12 13 16 30 lucky 3  
Winning numbers: 12 15 24 35 48 lucky 3  
Numbers matching: 1  
Lucky ball matches   
Your winnings: $6