```html
1    <html>
2    <head>
3    <title>Calculations</title>
4    <script language="javascript">
5    //Programmer: Aaron Yoon
6    //Project: calculate certain things about numbers in an array
7    //Date: 12/12/23
8
9    //declare an array object to hold integers
10   var numberArray = new Array();
11
12   var arrayCap = 1000;
13
14       function calculate()
15       {
16           var myNumbers = "";
17
18           var inputNum = inputForm.textBox.value;
19
20           var highest = 0;
21           var lowest = 100;
22           var total = 0;
23           var even = 0;
24           var odd = 0;
25           var inputAppeared = false;
26           var position = 0;
27           var totalInputCount = 0;
28
29           //searching for something
30          for(var i = 0; i < numberArray.length; i++){
31               //make a variable to make things easier
32               currentNumber = numberArray[i];
33
34               //adds the current number to the total to find average later
35               total += currentNumber;
36
37               //if the current number is divisable by 2, then it is even. If it isnt then
                 it is odd
38               if(currentNumber % 2 == 0)
39                   even++;
40               else
41                   odd++;
42
43               //if the current number is higher than the current highest number, then make
                 that the new highest
44               if(currentNumber > highest)
45                   highest = currentNumber;
46
47               //if the current number is lower than the current lowest number, then make
                 that the new lowest
48               if(currentNumber < lowest)
49                   lowest = currentNumber;
50
51               //if the current number is equal to the input num then add to the total
                 input appearances,
52               //if the position has not been changed yet then change it;
53               if(currentNumber == inputNum){
54                   totalInputCount++;
55
56                   if(!inputAppeared){
57                       inputAppeared = true;
58                       position = i;
59                   }
60               }
61
62           }
63
```

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64              //have if the number was not in the array then say it was not in the array
                instead of saying -1 as the position
65              var positionText = inputAppeared ? position.toString() : "Not in array";
66
67              //output the text
68              document.outputForm.txaoutputField.value =
69                  "Chosen Number: " + inputNum + "\n" +
70                  "First Position: " + positionText + "\n" +
71                  "Total Chosen Number Appearances: " + totalInputCount + "\n" +
72                  "Highest Number Found: " + highest + "\n" +
73                  "Lowest Number Found: " + lowest + "\n" +
74                  "Average Value: " + (total / 1000) + "\n" +
75                  "Odd Numbers: " + odd + "\n" +
76                  "Even Numbers: " + even + "\n";
77
78
79          }
80
81          function resetArray(){
82              //resets the array
83              for(var i = 0; i < arrayCap; i++){
84                  numberArray[i] = Math.floor(Math.random() * 1000) + 1;
85               }
86          }
87      </script>
88      <style type="text/css">
89          label{color:blue;
90              font-size:25px;}
91      </style>
92      </head>
93      <body>
94      <center>
95      <h1>Calculations and Functions</h1>
96      </br>
97      </br>
98      <form name = "inputForm" onload="resetArray()">
99
100     <input type="button" name="btnCalculate" value="Calculate"
101             onclick="calculate()"/>
102
103     <input type="button" name="btnReset" value="Reset"
104             onclick="resetArray()"/>
105
106     <input type="text" name="textBox">
107
108     </form>
109     </br>
110     <form name = "outputForm">
111         <textarea readonly name = "txaoutputField" id="outputField"
112             rows="30" cols="70"/>
113         </textarea>
114     </form>
115     </center>
116     </body>
117     </html>
```