SillyCalculator Computer Science Haas

**Write a JavaScript program to improve Haas' Silly Calculator.**

**Watch this video to help you get started:** [**https://youtu.be/4SDCX6XRSHw**](https://youtu.be/4SDCX6XRSHw)

The Silly Calculator already a button to ***add 1***, WOW! You need to complete the functions ***subtract 1***, and ***clear***.

Then add the following new buttons and functions to your calculator:

New buttons on the calculator which change the total value and comment.

* **Double** - This button will multiply the current value by 2, and changes to comment to “thanks for doubling”.
* **Absolute Value** - This button takes the absolute value of the current total, and changes to comment to “here is the absolute value”.
* **Factorial** - Finds the factorial and displays the expression used. (Example: 5 factorial would change the value to 120 and display 5x4x3x2x1 in the comment area.)

New buttons on the calculator which only change the comment (the total value is NOT changed).

* **Odd or Even** - States if the value is ODD or EVEN.
* **Perfect Square** - States if the value is a perfect square. Hint: perfect square roots which are whole numbers.
* **Sum of Digits** - Displays the sum of the digits in the number in the form of an equation. Example: If the value is 423, your program should display the comment 4+2+3=9.

Use this code as a starting point (copy it into notepad++):

<html>

<head>

<title>SillyCalculator</title>

<script language="JavaScript">

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

/\*\*\* This function is run when the +1 button is clicked \*\*\*/

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

function Add(t)

{

 t++;

 CalcForm.tot.value = t;

 CalcForm.out.value = "Thanks for adding 1"

}

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

/\*\*\* This function is run when the -1 button is clicked \*\*\*/

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

function Sub(t)

{

 alert("complete the code to subtract 1");

}

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

/\*\*\* This function is run when Clear clicked \*\*\*/

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

function Clear()

{

 alert("complete the code to set total to 0 and clear the text comment field");

}

</script>

</head>

<body bgcolor="AAAAFF">

<form name="CalcForm">

<center>

<h2>Welcome to Haas's Silly Calculator: </h2>

<font size="4">

<hr>

Value: <input type="text" name="tot" size="30" value=0 readonly="true">

<p>Comment: <input type="text" name="out" size="45" value="" readonly="true">

<hr>

<p><input type="button" value="+ 1" onclick="Add(tot.value)">

<input type="button" value="- 1" onclick="Sub(tot.value)">

<p><input type="button" value="Clear" onclick="Clear()">

</center>

</form>

</font>

</body>

</html>