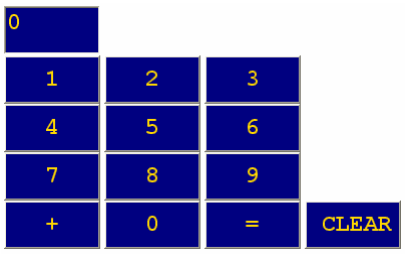
Understanding local and global variables

```
<HTML>
<HEAD>
<SCRIPT LANGUAGE=JavaScript>

var x=1;
var y=2;

function doTestA() {
      x = x + 3;
      y = y + 4;
      alert("x :"+x+", y: "+y);
}

function doTestB() {
      var x=0;
      var y=0;
      x = x + 3;
      y = y + 4;
      alert("x :"+x+", y: "+y);
}

function doTestC() {
      alert("x :"+x+", y: "+y);

}

function doAll() {
      doTestA();
      doTestB();
      doTestC();
}

function doTestD(){
      var x=0;
      alert("x :"+x+", y: "+y);
}

</SCRIPT>

</HEAD>
<BODY>
<INPUT type="button" value="Click Me 1" onclick="doAll()">
<INPUT type="button" value="Click Me 2" onclick="doTestD()">
<INPUT type="button" value="Click Me 3" onclick="doTestC()">

</BODY>
</HTML>
```

Show what appears in the alert box for the code above. Assume that the code compiles and runs correctly without errors.

Construct the following calculator. The HTML code is provided. You have to write JavaScript code in order to add two numbers. The numbers are embedded in a button as described in the HTML instructions below. I enter the following:



Click 1 - display 1
Click 2 - display 12 (as in twelve)
Click + - display 12
Click 3 - display 3
Click 4 - display 34 (as in thirty-four)
Click = - display 46 (which is the sum of 12 + 34)
Click Clear – display 0.

```
<HTML><HEAD>
<SCRIPT language=JavaScript>


function updateNumber(cell) {


}

function clearMemory() {


}

function startAdding(){


}

function computeSum() {


}
</script>
</HEAD>
<BODY>
<FORM name="simpleForm">
<INPUT class=myButton TYPE=text NAME="showWin" VALUE="0" SIZE=10
align=right><BR>
<INPUT class=myButton type=button value="1" onclick="updateNumber(this)">
<INPUT class=myButton type=button value="2" onclick="updateNumber(this)">
<INPUT class=myButton type=button value="3" onclick="updateNumber(this)"> <BR>
<INPUT class=myButton type=button value="4" onclick="updateNumber(this)">
<INPUT class=myButton type=button value="5" onclick="updateNumber(this)">
<INPUT class=myButton type=button value="6" onclick="updateNumber(this)"> <BR>
<INPUT class=myButton type=button value="7" onclick="updateNumber(this)">
<INPUT class=myButton type=button value="8" onclick="updateNumber(this)">
<INPUT class=myButton type=button value="9" onclick="updateNumber(this)"> <BR>
<INPUT class=myButton type=button value="+" onclick="startAdding()">
<INPUT class=myButton type=button value="0" onclick="updateTime(this)">
<INPUT class=myButton type=button value="=" onclick="computeSum()">
<INPUT class=myButton type=button value=" CLEAR " onclick="clearMemory()">

</form></BODY></HTML>
```

Also, make sure you know how to declare various forms of array. Here is another array type of question I can ask you.

Consider the following JavaScript code, which you should assume compiles and runs without errors.

```
<HTML>
<HEAD>
<SCRIPT LANGUAGE=JavaScript>

var myList = new Array(6, 3, 9, 5);

function doPartA(i, j) {
      var temp;
      temp = myList[i];
      myList[i] = myList[j];
      myList[j] = temp;
}


function doPartB(s) {
      for (k=s+1; k < 4; k++) {
              if (myList[k] < myList[s])
                      s = k;
      }
      return s;
}

function doPartC() {
      for (m=0; m < 4; m++) {
            x = doPartB(m);
            doPartA(m, x);
      }
}

function showResult() {
      alert(" "+myList[0]+" "+myList[1]+" "+myList[2]+" "+myList[3]);
}

</SCRIPT>
</HEAD>
<BODY>
<INPUT type="button" value="Click Me" onclick="doPartC()">
</BODY>
</HTML>
```

In the answer box provided, show the contents of myList after I click the “Click Me” button. You are to show your incremental work for full credit in the space provided below:
