

Comp 110-004 Midterm practice

Fall 2007

These questions represent the kind of questions asked on the midterm. The practice is longer than the midterm to provide more examples.

Execute statements

Evaluate each of the following JavaScript expressions and show the value.

5-4

4+5

-9*3

"value is " + 50

17 % 5

5 % 17

5/10

(7 <= 8)

(4 == 4)

(4 != 5)

Math.floor(77.8)

Math.ceil(40.3)

Converting binary-decimal numbers

Convert these binary numbers into decimal numbers

- 110111
- 101011
- 10100

Convert these decimal values into binary numbers

- 55
- 43
- 20

Read a given HTML/JavaScript file. Be able to complete the following:

- Recognize HTML tags (those used in Hw0, your first web page)
- Write JavaScript commands to access form field (input and output). Similar to commands used in program 1-3.
- Understand buttons and functions.
- Given HTML, sketch a web page as it appears in a web browser

```
<html>
<head>
  <title>The bank</title>
</head>
<body>

<script>
function convertCents() {
    alert("Start conversion");
}
function currency() {
    alert("Which one?");
}
</script>
<h1> Penny converter</h1>
<form name = "myForm">
  Enter the number of cents to convert to change:
  <br>
  <input name="inputCents">
  <br>
  <input type="button" onClick="convertCents()" value="Get change">
  <input type="button" onClick="currency()" value="Currency">
  <hr>
  <input name="outputChange">
</form>
</body>
</html>
```

Given a segment of code, trace loops and selection statements

Trace the following program by showing the text of the alert messages that are displayed when it runs. There are no errors. Execution begins just after the comment // Start of execution.

```
// Start of execution
var x =5;
var y =1;
while (x > 0){
    x = x-1;
    y = y*x;
    alert(x + " " + y);
}

var i;
var count =0;
for (i =0; i < 11; i++){

    if (i < 3 || 7 <i){
        count++;
        alert(count + " i " + i + " range 1");
    }else if (i == 5){
        count++;
        alert(count + " i " + i + " range 2");
    }
    if ( 2<= i && i < 7){
        count++;
        alert(count + " i " + i + " range 3");
    }
}

}
```

Given a description of a task, write the JavaScript commands involving loops and selection statements

Write a for loop that counts the zeros in the array named temp. There are three zeros in this case. Your for loop should apply to any size array.

```
var temp = [2, 1, 0, 67, 0, 20, 0];
```