

Internet Programming I

Worksheet 24.1: Evaluating JS Expressions

1) Trace the execution of the following JavaScript code, drawing the contents of memory cells after each assignment and listing the output of each write statement.

```
var pairs_of_shoes = 0;
pairs_of_shoes = pairs_of_shoes + 3;
alert("pairs_of_shoes is " + pairs_of_shoes);

pairs_of_shoes = pairs_of_shoes * pairs_of_shoes;
alert("pairs_of_shoes is " + pairs_of_shoes);

var word = "littleBunnyFooFoo";
word = word + "-" + word;
alert("word is " + word);
```

2) Try to predict the value of each of the following expressions.

```
alert(3 + 3 * 2 + 1);
alert(10 / 2 * 5);
alert(7 - 2 - 4);
alert(7 - (2 - 4));
alert(3 * (5 / 2) + 2 * 8);
```

3) What do each of the following expressions evaluate to? Describe the steps involved in each evaluation.

```
alert("My favorite number is " + 10 + 24);
alert("My favorite number is " + (10 + 24));
alert("My favorite number is " + 10 + "" + 24);
```

4) Trace the execution of the following JavaScript code, drawing the contents of memory cells after each assignment and listing the output of each write statement. Assume that the user enters the value 1024 at the prompt.

```
x = prompt("Enter a number", "");
alert("Double " + x + " is " + (2 * x));
alert("Double " + x + " is " + (x + x));
x = parseFloat(x);
alert("Double " + x + " is " + (x + x));
```