



## **Problem 2**

Write a trace table for the following JavaScript program.

```
<script type="text/javascript">
    var x = 100;
    var y = 20;
    var name = "Bob";
    var p = 1;
    var t = false;

    if (x > y) {
        x = x * 3;
        p = p - y;
    }
    t = !t;
</script>
```

## **Problem 3**

Write a JavaScript program that reads two values. The program will then compute the average of the values and print a message based on the average. The values must be read using `prompt` and the result must be printed using `document.writeln`. The following data represents the cutoffs to be used for the generation of the output message:

Average  $\geq 90.0 \rightarrow$  "You did very well"  
Average  $\geq 80.0 \rightarrow$  "You did good"  
Less than 80.0  $\rightarrow$  "Not satisfactory"

Use the message "Enter value" to request values. The output should display one of the above strings. You don't need to use meaningful variable names.

## **Problem 4**

Write pseudocode for a program that computes the sum of odd values from 1 up to a maximum value provided by the user.

## **Problem 5**

Write a JavaScript program that implements the pseudocode you define in Problem 4. Your program will read the maximum value by using the *prompt* function and it will display the result by using `document.writeln`. You don't need to use meaningful variable names.

### **Problem 6**

A histogram is a graph where each column represents a particular value. Write a program that reads four values from the user and then plots those values as a histogram. For example, if the user enters the values 1, 2, 6, 3 your histogram will be:

```
*  
**  
*****  
***
```