

CMSC 198J Quiz 1 Worksheet

The first quiz for the course will be on Tuesday, Jan 15 at the beginning of the class. The following list provides more information about the quiz:

- The quiz will be a written quiz (no computer).
- Closed book, closed notes quiz.
- Answers must be neat and legible. We recommend that you use pencil and eraser.

The following exercises cover the material to be included in this quiz. Solutions to these exercises will not be provided, but you are welcome to discuss your solutions with the TA or instructor during office hours. When asked to write JavaScript, code only provide what will appear in the `<script> </script>` section (no need for `<html>`, `<head>`, `<body>`, or `DOCTYPE`).

Exercises

1. Write a function named "find" that has the following prototype:

```
function find(data, target);
```

The function will return true if target is one of the values in the array and false otherwise.

2. Write a JavaScript function named "findInstances" that has the following prototype:

function findInstances(array, target)

array → represents an array of integers, target → integer value.

The function will return the number of entries in the data array whose value is target. For example, the following code fragment uses the function you need to define. The number displayed is 3.

```
var a = [10, 20, 10, 10]; // this is an integer array with the specified values
alert(findInstances(a, 10));
```

3. Write a function named "doubleValues" that has as parameter an array of integer values and that updates each array entry with twice the original value.
4. Write a function named "equals" that has the following prototype:

```
function equals(first, second);
```

The function has two integer arrays as parameters and it returns true if the arrays have the same values. For example, for:

```
first → 10, 3, 7 and second → 10, 3, 7 equals will return true
first → 10, 7, 3 and second → 10, 3, 7 equals will return false
first → 10, 3, 7 and second → 10, 3, 7, 8 equals will return false
```

5. Write a function named "filter" that has the following prototype:

```
function filter(data, cutoff);
```

The function will create and return a new array with entries from the data integer array with a value less than or equal to cutoff. The function will return **null** if there are no entries that satisfy the specified criteria.