**Teacher/class time:** Eloe(9AM) Hoot(11AM) Hoot(1PM) Eloe(1PM) Hoot(2PM)

You may use a single sheet (8.5 by 11 inches) of handwritten paper notes. No other resources are allowed.

**(Question 1A – 6 points)** Given the following Bootstrap 5 device screen sizes:

Extra small: <576px Small: >=576px Medium: >=768px Large: >=992px Extra Large: >=1200px Given the following HTML:

Show (using the cells below to help with spacing) where the content would go on a *small* device and outline the boxes to indicate how many columns each div will have in the row. Note: you may not need all rows provided, but you will not need more rows. The demo lines have been done for you

Demo 1	Γ	Demo :	2			
Content 1	Content 2 Content 3					
Content 4						

**(Question 1B – 2 points)** What problems do cookies help fix? What kinds of problems can cookies cause?

Needing to store state between calls Tracking/privacy issues

**(Question 1C – 2 points)** Describe a difference between a variable declared with let and a variable declared with const.

The value (ref) of a variable declared with let may changeThe value (ref) of a variable declared with const

The following is in the body of some responsive HTML annotated with line numbers that is using bootstrap. You will modify this code to accomplish the given tasks for question 2.

```
01:<form>
    <label for="form1 size">Size is: </label>
02:
    <input type="number" id="form1 size" name="form1 size"> <br>
03:
    <label for="form1 word">Word is: </label>
04:
    <input type="text" id="form1 word" name="form1 word">
05:
    <label for="form1 cost">Cost is: </label>
06:
    <input type="number" id="form1 cost" name="form1 cost">
08:</form>
09: <div class="container-fluid">
    <h1 id="fred">Responsive Design</h1>
    Resize the browser window
12:
    To see the effect
    <div class="row" id="bit">
14:
    <div class="col-sm-2" id="one">ALF </div>
15: <div class="col-sm-2" id="two">BOGO</div>
    <div class="col-sm-2" id="three">GPU</div>
16:
17: <div class="col-sm-2" id="four">DOD </div>
18:</div>
19: <button type="button" class="btn btn-success">Opt1</button>
20: <button type="button" class="btn btn-warning">Opt2</button>
function processRepeat(){
  let word = document.getElementbyId('form1_word').value
  word += document.getElementById('fred').innerHTML
  document.getElementById('two').innerHTML=word
}
```

Question 2 (10 points)

*Task 1 (2 points)*: Modify the size input so that it has a default value of 32. Give the line number of the HTML you are changing and what you are changing the line to.

Line #: 3

Modified to: <input type='number' ... value=32>

Full Name: \_

Task 2 (6 points): Create a Javascript function named processRepeat that will get the value of the word in the form, concatenate it with the contents of the h1 element, and replace the contents of the div containing BOGO with the result. Write the Javascript and appropriate HTML tags below line 20 on the previous page.

*Task 3 (2 points)*: Modify the HTML so pressing the Opt1 button will call the function you wrote in task 2. Give the line number of the HTML you are changing and what you are changing the line to.

Line #: 20

Modified to: <button ... onclick='processRepeat()'>Opt1</button>

**Question 3A (6 points)** Write a Javascript function (no HTML needed) that takes an array of numbers, creates an Object that contains the sum of the squares of the numbers and the largest number in the array (choose appropriate keys to use for these values), and returns the object.

```
function (vals) { // no name needed, but can provide one
  let sumsquares = 0
  let maxval = vals[0]
  for val of vals {
    sumsquares += val*val
    if (val > maxval) minval = val;
  }
  return {'sum_of_squares': sumsquares, 'max': maxval}
```

```
Question 3B (4 points) Given the following Javascript
function foo (somenumbers) {
    bar = 0
    for (num of somenumbers) {
        if (num % 2 == 0) bar += num
        else bar -= num
    }
    setTimeout(()=>alert(`Result is ${bar}`), 3000)
}
```

What happens when **foo([1,2,3,4,5,6])** is called? Specifically what is the output and when/how is it displayed to the user?

```
3 is displayed in the alert text 3 seconds after the
function is called
```

## Midterm 2

You are allowed to use your single page of hand written notes as a reference.

2 points Free Question The basic table styling can be done using which class? table table container tbl style table 2 points If we have a variable which has reference for a div let goDiv = document.getElementById("display") how can we register a callback function to respond to a click event? Not possible since div elements don't respond to clicks clickEvent(goDiv, functiontocall) goDiv.onclick = functiontocall goDiv.set("functiontocall") 3 2 points How are unordered lists styled with Bootstrap? using a class of list-group in a tag

using a class of list-group in a tag

using an id of list-group in a tag

none of the above

4	2 po	ints							
	Given the definition  let object = {x:10, y:20}  What is the result if we ask for the value of z?								
	0	An exception is thrown							
	0	We get the value 10							
	0	We get the number 0							
	$\bigcirc$	We get the value undefined							
5	2 points								
	Which of the following is NOT an example of a Java Script object?								
	X	{{}}							
	0	{}							
	0	{name:"Kitty"}							
	0	{id:5, position:"top"}							