**Common Mistakes**

**Arrays and Loops**

- When checking how many things are inside an array you must put **.length** at the end of the array name. People often misspell length so be careful.

**--- CORRECT**  myArray**.length;**

**XXX WRONG** myArray.**lenght**;

- In for loops be very careful of the **conditional part** of the loop (the second segment). This expression should equate to true for as many times as you want

The loop to run. If your loop is not running it is probably because you have your greater than or less than sign the wrong way around.

**--- CORRECT**  for (let i=0; **i<10**; i+=1) { … }

**XXX WRONG**  for (let i=0; **i==10**; i+=1) { … }

**XXX WRONG**  for (let i=0; **i>10**; i+=1) { … }

- If you are creating a for loop and concatenating strings onto a pre-existing string inside of it, you must make sure that the pre-existing

string has a value before going into a loop. A variable that is being assigned a new value with += needs to be understood as a string for it to work

correctly during the first iteration. Also be careful not to overwrite the variable either in the loop by using = instead of +=.

**--- CORRECT**  **let message = “”;**

for (let i=0; i<10; i+=1) {

message += “New Word “;

}

**XXX WRONG** **let message;**

for (let i=0; i<10; i+=1) {

message += “New Word “;

}

**XXX WRONG** let message;

for (let i=0; i<10; i+=1) {

**message = “New Word “;**

}

- In for loops be very careful of the **incremental part** of the loop (the third segment). When incrementing a variable makes sure to use the correct assignment operators and do not place a semicolon after this part.

**--- CORRECT**  for (let i=0; i<10; **i+=1**) { … }

**--- CORRECT**  for (let i=0; i<10; **i+=2**) { … }

**--- CORRECT**  for (let i=0; i>-10; **i-=2**) { … }

**--- CORRECT**  for (let i=0; i>-10; **i++**) { … }

**XXX WRONG** for (let i=0; i>-10; **i=1**) { … }

**XXX WRONG** for (let i=0; i>-10; **i=+1**) { … }

- If you are using a for loop to loop through an array it is best to use the array length in the **conditional section** as opposed to hard coding a number there. Also make sure that the incremented variable is less than the array length and not less than or equal to it due to the fact that array indexes start at 0.

const arr = [“One”, “Two”, “Three”];

**--- CORRECT**  for (let i=0; **i<arr.length;** i+=1) { … }

**XXX WRONG** for (let i=0; **i<3;** i+=1) { … }

**XXX WRONG** for (let i=0; **i<=arr.length**; i+=1) { … }