

Name _____ Period _____

Skill 30.1 Exercise 1	
Indicate the output for the following code snippets,	
<pre>var j = 0; for(var g = 0; g < 5; g++){ j++; } console.log(j);</pre>	
<pre>var s = 1; for(var j2 = 3; j2 >= 0; j2--){ s = s + j2; } console.log(s);</pre>	
<pre>var result = ""; for(var n = 1234; n > 0; n=Math.floor(n/=10)){ result += n%10; } console.log(result);</pre>	

Skill 30.1 Exercise 2
Write a program that accepts a phrase from the user and checks if the phrase reads the same if it is reversed. If the reversal of the string is identical to the original your program must indicate “Palidrome!”, otherwise it should indicate “Not a palindrome!”.
<pre>var word = prompt("Type a word to see if it is a palindrome");</pre>

Name _____ Period _____

Skill 30.2 Exercise 1

Which of the following would cause an error? Why?

```
var sum = 0;  
for(var n = 3; n <= 79; n++) {  
    sum += n;  
}  
console.log(n);
```

```
var n = 0;  
for(n = 3; n <= 79; n++) {  
    sum += n;  
}  
console.log(n);
```

Skill 30.2 Exercise 2

Consider the WORDLE game described below,

Guess the **WORDLE** in 6 tries.

Each guess must be a valid 5 letter word. Hit the enter button to submit.

After each guess, the color of the tiles will change to show how close your guess was to the word.

Examples

W **E** **A** **R** **Y**

The letter **W** is in the word and in the correct spot.

P **I** **L** **L** **S**

The letter **I** is in the word but in the wrong spot.

V **A** **G** **U** **E**

The letter **U** is not in the word in any spot.

A new **WORDLE** will be available each day!

Name _____ Period _____

The following code can be used to create the first row of letter boxes.

```
var dim = 50;
function makeLetterBox(d, xPos, yPos, id){
var b = document.createElement("div");
b.style.width = d+"px";
b.style.height = d+"px";
b.style.position = "absolute";
b.style.left = xPos + "px";
b.style.top = yPos + "px";
b.style.border = "blue thin solid";
b.style.fontSize = "2em";
b.style.textAlign = "center";
b.style.paddingTop = "5px";
b.style.color = "white";
b.style.innerHTML = "";
b.id = id;
document.body.append(b);
return b;
}

var b0 = makeLetterBox(dim, dim*0, dim*0, 0);
var b1 = makeLetterBox(dim, dim*1, dim*0, 1);
var b2 = makeLetterBox(dim, dim*2, dim*0, 2);
var b3 = makeLetterBox(dim, dim*3, dim*0, 3);
var b4 = makeLetterBox(dim, dim*4, dim*0, 4);
```

The code above displays the following.



Below represents possible scenarios when the user types a guess,



The word to guess is defined below,

```
wordToGuess = wordBank[Math.floor(Math.random()*wordBank.length)];
```

Name _____ Period _____

Write an algorithm that could be used to check each letter in the first column – that is the letterBoxes with id's 0 through 4. Your algorithm should get the letter from each box (innerHTML) and compare it to each letter in the word. If the letter is not in the word, the background of the box should be changed to GRAY. If the letter is in the word, but not in the correct location, the background color of the box should be changed to YELLOW. If the letter is in the word and in the correct location, the box should be changed to GREEN.

Skill 30.3 Exercise 1

How many times will “outer” and “inner” be printed?

```
for(var outer = 1; outer < 6; outer++) {  
    console.log(outer);  
    for(var inner = -3; inner < 8; inner++){  
        console.log(inner);  
    } //end inner loop  
} //end outerloop
```

What will be printed?

```
var sum = 0;  
for(var outer = 0; outer < 5; outer++) {  
    for(var inner = 0; inner < 8; inner++){  
        sum += 1;  
    } //end inner loop  
} //end outerloop  
console.log(sum);
```

Name _____ Period _____

Skill 30.4 Exercise 1	
Implement the following <i>for-loops</i> as while loops	
<pre>var m = 0, k = 0, p = 0; for(m = 97; m <=195; m++){ k = k * k + 3 * m; p = p + m + 1; }</pre>	
<pre>var k = 0, p = 0, q = 0; for(var v = 2; v <=195; v*=3){ k = k * k + 3 * v; q = Math.sqrt(q + v + 1); }</pre>	