**p16**

**Setting and Swapping**

var myNumber = 42;

var myName = "Xinya";

var temp = myNumber;

console.log(myNumber = myName);

console.log(myName = temp);

**Print -52 to 1066**

for(var i=-52; i< 1067; i++){

console.log(i);

}

**Don’t Worry, Be Happy**

function beCheerful(){

console.log("good morning!")

};

for(var i=1; i< 99; i++){

beCheerful();

}

**Multiples of Three – but Not All**

for(var i=-300; i<1;i++){

if(i%3 ==0 &&i!=-3&&i!=-6){

console.log(i);

}

}

**Printing Integers with While**

var i = 2000;

while(i<5281){

console.log(i);

i+=1;

}

**You Say It’s Your Birthday**

function sayYourBirthday(num1,num2){

if((num1==03 || num1==31) && (num2==31|| num2==03)){

console.log("How did you know?");

}

else{

console.log("Just another day...")

}

}

sayYourBirthday(02,31);

sayYourBirthday(31,03);

**Leap Year**

function leapYear(year){

if(year%4!=0){

console.log("It is not a Leap Year");

}

else if(year%100!=0){

console.log("It is a Leap Year");

}

else if(year%400!=0){

console.log("It is not a Leap Year");

}

else{

console.log("It is a Leap Year");

}

}

leapYear(2017);

leapYear(2012);

**Print and Count**

var count=0;

for(var i=512; i<4097; i++){

if(i%5 ==0){

console.log(i);

count ++;

};

}

console.log(count);

**Multiples of Six**

var i=0;

while(i<60000){

if(i%6==0){

console.log(i);

}

i++;

}

**Counting, the Dojo Way**

for(var i=1; i<101; i++){

if(i%5 ==0&& i%10!=0){

console.log("Coding");

}

else if(i%10 ==0){

console.log("Dojo");

}

else{

console.log(i);

}

}

**What Do You Know?**

function whatDoYouKnow(incoming){

console.log(incoming);

}

whatDoYouKnow ("deer");

**Whoa, That Sucker’s Huge...**

var sum=0;

for(var i=-300000; i<300001; i++){

sum+=i;

}

console.log(sum);

**Whoa, That Sucker’s Huge... (short cut)**

function shortCut(num1,num2){

if(num1 == num2\*-1){

return 0;

}

}

console.log(shortCut(-3,3));

**Countdown by Fours**

var num=2016;

while(num>0){

console.log(num);

num-=4;

}

**Flexible Countdown**

function countDown(lowNum,highNum,mult){

var i = highNum;

for(var i=highNum; i>lowNum; i--){

if(i % mult ==0){

console.log(i);

}

}

}

countDown(2,9,3);

**The Final Countdown**

function finalCountdown(param1,param2,param3,param4){

var num = param3;

while(num>param2){

if(num % param1 == 0 && num!=param4){

console.log(num);

}

num--;

}

}

finalCountdown(3,5,17,9);

**p20**

**Countdown**

var arr=[];

function countDown(num){

for(var i=num; i>=0; i--){

arr.push(i);

}

return arr;

}

console.log(countDown(13));

console.log(arr.length);

**Print and Return**

function printnReturn(arr){

var temp= arr[0];

arr[0]= arr[1];

arr[1]= temp;

return arr;

}

console.log(printnReturn([3,4]));

**First Plus Length**

function firstPlusLength(arr){

return arr[0]+arr.length;

}

console.log(firstPlusLength([2,3,4]));

console.log(firstPlusLength(["what?",2,3,4]));

console.log(firstPlusLength([true,2,3,4]));

console.log(firstPlusLength([false,2,3,4]));

**Values Greater than Second**

var count= 0;

function valuesGreater(arr){

for(var i=0; i<arr.length; i++){

if(arr[i]>arr[1]){

console.log(arr[i]);

count++

}

}return "There are "+count+" numbers greater than the second value";

}

valuesGreater([1,3,5,7,9,13]);

**Values Greater than Second, Generalized**

function Generalized(arr){

if(arr.length<2){

console.log("You suppose to put two values in your array.");

}

else{

var newArr =[];

for(var i=0; i<arr.length; i++){

if(arr[i]>arr[1]){

newArr.push(arr[i]);

}

}

console.log("There are "+ newArr.length+ " values greater than second value.");

return newArr;

}

}

console.log(Generalized([9,6,8,7]));

**This Length, That Value**

var arr = [];

function thisLengthThatValue(num1,num2){

if(num1 == num2){

console.log("Jinx!");

}

else{

for(var i= 0; i<num1; i++){

arr.push(num2);

}

}return arr;

}

console.log(thisLengthThatValue(6,3));

**Fit the First Value**

function fitTheFirstValue(arr){

if(arr[0]>arr.length){

console.log("Too big!");

} else if(arr[0]<arr.length){

console.log("Too small!");

}

else{

console.log("Just right!");

}

}

console.log(fitTheFirstValue([5,2,5]));

**Fahrenheit to Celsius**

function fahrenheitToCelsius(fDegrees){

var celsius = (fDegrees-32)\*(5/9);

return celsius;

}

fahrenheitToCelsius(80);

**Celsius to Fahrenheit**

function celsiusToFahrenheit(cDegrees){

var fDegrees = (9/5 \* cDegrees) +32;

return fDegrees;

}

celsiusToFahrenheit(40);

**(Optional)**

function celsiusToFahrenheit(cDegrees){

var fDegrees = (9/5 \* cDegrees) +32;

for(var celsius= 200; celsius>0; celsius--){

if(fDegrees == celsius){

console.log(celsius);

}

}

}

console.log(celsiusToFahrenheit(30));

**P22**

**Biggie Size**

function biggieSize(arr){

for(var i=0; i<arr.length; i++){

if(arr[i]>0){

arr[i]="big";

}

}return arr;

}

console.log(biggieSize([-4,-5,1,5]));

**Print Low, Return High**

function printLowReturnHigh(arr){

var highest =arr[0];

var lowest =arr[0];

for(var i=0 ;i<arr.length; i++){

if(arr[i]<lowest){

lowest = arr[i];

}

if(arr[i]> highest){

highest = arr[i];

}

} console.log(lowest);

return highest;

}

console.log(printLowReturnHigh([-3,6,4,5]));

**Print One, Return Another**

function printOne(arr){

for(var i=0; i<arr.length; i++){

if(arr[i]%2!=0){

break;

console.log(arr[i]);

}

}

console.log(arr[arr.length-2]);

return arr[i];

}

printOne([3,8,7,6]);

**Double Vision**

function doubleVision(arr){

var newArr = [];

for(var i=0; i<arr.length; i++){

arr[i]= arr[i]\*2;

newArr.push(arr[i]);

}return newArr;

}

doubleVision([1,2,3]);

**Count Positives**

function countPositives(arr){

var count=0;

for(var i=0; i<arr.length; i++){

if(arr[i]>0){

count +=1;

}

}

arr[arr.length-1]= count;

return arr;

}

countPositives([-1,1,1,1]);

**Evens and Odds**

function evensAndOdds(arr){

var odds=0;

var evens=0;

for(var i=0; i<arr.length; i++){

if(arr[i]%2!=0){

odds++;

if(odds>=3){

console.log("That's odd!");

odds=0;

}

}

else{

evens++;

if(evens>=3){

console.log("Even more so!");

evens=0;

}

}

}

}

evensAndOdds([1,3,5,7,9])

**Increment the Seconds**

function incrementTheSeconds(arr){

for(var i=0; i<arr.length; i++){

if(i%2!=0){

arr[i]++;

}console.log(arr[i]);

}return arr;

}

incrementTheSeconds([1,2,4,5]);

**Previous Lengths**

function previousLengths(arr){

for(var i=arr.length-1; i>0; i--){

arr[i]= (arr[i-1]).length;

}return arr;

}

previousLengths(["This","is","a","array","of","strings"])

**Add Seven to Most**

function addSeven(arr){

var newArr =[];

console.log(arr);

for(var i=1; i<arr.length; i++){

arr[i]= arr[i]+7;

newArr.push(arr[i]);

}

return newArr;

}

addSeven([1,3,0,2]);

**Reverse Array**

function reverseArray(arr){

var temp = arr[0];

var temp2 = arr[1];

var temp3 = arr[3];

for(var i=0; i<arr.length; i++){

arr[i]=arr[arr.length-(i+1)];

arr[4]=temp;

arr[3]=temp2;

arr[1]=temp3;

}return arr;

}

reverseArray([3,1,6,4,2])

OR:

function reverseArr(arr){

var newArr=[];

for(var i=0; i<arr.length; i++){

newArr=(arr.reverse(i));

}

return newArr;

}

reverseArr([3,1,6,4,2]);

**Outlook: Negative**

function outlook(arr){

for(var i=0; i<arr.length; i++){

if(arr[i]>0){

arr[i]= arr[i]\*(-1);

}

else if(arr[i]<0){

continue;

}

}return arr;

}

outlook([1,-3,5]);

**Always Hungry**

function alwaysHungry(arr){

for(var i=0; i<arr.length; i++){

if(arr[i]=="food"){

console.log("yummy");

}

else{

console.log("I'm hungry");

break;

}

}

}

alwaysHungry(["a","a","a"]);

alwaysHungry(["food","food","food","food"])

**Swap Toward the Center**

function swapToward(arr){

var temp= arr[0];

var temp2 = arr[2];

for(var i=0; i<arr.length; i++){

arr[0]=arr[arr.length-1];

arr[arr.length-1]= temp;

break;

}

for(var i=2; i<arr.length; i++){

arr[2]=arr[arr.length-3];

arr[arr.length-3]=temp2;

break;

}return arr;

}

swapToward(["pizza",42,"Ada",2,true]);

swapToward([1,2,3,4,5,6]);

**Scale the Array**

function scaleTheArray(arr,num){

for(var i=0; i<arr.length; i++){

arr[i] =arr[i] \* num;

} return arr;

}

scaleTheArray([7,5,4,2],2);