**1)Create a function that will return prime number less than ‘n’ where ‘n’ is the number less than 100 and provided as an argument to function.**

**Ans: function isPrime(n)**

**{**

**// Corner case**

**if (n <= 1)**

**return false;**

**// Check from 2 to n-1**

**for (let i = 2; i < n; i++)**

**if (n % i == 0)**

**return false;**

**return true;**

**}**

**// Function to print primes**

**function printPrime(n)**

**{**

**for (let i = 2; i <= n; i++) {**

**if (isPrime(i))**

**document.write(i +" ");**

**}**

**}**

**let n = 100;**

**printPrime(n);**

**Output : node /tmp/zTr5pD3GtY.js**

**2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 97**

**2)Given an array: [3,62,234,7,23,74,23,76,92], use the array filter method and an arrow function to create an array of the numbers greater than `50`.**

**Ans: var numbers = [3,62,234,7,23,74,23,76,92];**

**var result = numbers.filter(number =>number > 50);**

**console.log(result);**

**output:node /tmp/zTr5pD3GtY.js**

**[ 62, 234, 74, 76, 92 ]**

**3 )Write a function that would allow you to do this.  
 var addSix = createBase(6);**

**addSix(10); // returns 16**

**addSix(21); // returns 27**

**Ans: function createBase(baseNumber) {**

**return function(N) {**

**return baseNumber + N;**

**}**

**}**

**var addSix = createBase(6);**

**addSix(10);**

**addSix(21);**

**console.log(addSix);**

**Output: [Function]**

**4)Write a function that checks whether a passed string is palindrome or not?**

**function reverse( str )**

**{**

**let rev\_str = "hello";**

**for( let i = str.length-1 ;i >= 0 ;i--)**

**{**

**rev\_str+= str[i];**

**}**

**return rev\_str;**

**}**

**// function checking string is palindrome or not**

**function is\_palindrome( str )**

**{**

**reverse\_str = reverse(str);**

**if( reverse\_str === str)**

**{**

**console.log("passed string is palindrome ");**

**}**

**else**

**{**

**console.log("passed string is not palindrome")**

**}**

**}**

**let test = "hellolleh";**

**is\_palindrome(test);**

**Output: node /tmp/zTr5pD3GtY.js**

**passed string is not palindrome**

**5)Write a JavaScript program to list the properties of a JavaScript object.**

**Ans: let object = {**

**name: 'Sonal',**

**age: 28**

**};**

**let keys = Object.keys(object)**

**console.log(keys);**

**Output: node /tmp/zTr5pD3GtY.js**

**[ 'name', 'age' ]**

**6)var library = [**

**{**

**title: ' Vivekadeepini ',**

**author: ' Adi Shankaracharya',**

**readingStatus: true**

**},**

**{**

**title: ' “Lessons Life Taught Me Unknowingly”.',**

**author: 'Anupam Kher',**

**readingStatus: true**

**},**

**{**

**title: 'Cricket World Cup: The Indian Challenge',**

**author: 'Ashis Ray',**

**readingStatus: true**

**}];**

**for (var i = 0; i < library.length; i++)**

**{**

**var book = "'" + library[i].title + "'" + ' by ' + library[i].author + ".";**

**if (library[i].readingStatus) {**

**console.log("Already read " + book);**

**} else**

**{**

**console.log("You still need to read " + book);**

**}**

**}**

**Output: Already read ' Vivekadeepini ' by Adi Shankaracharya.**

**Already read ' "Lessons Life Taught Me Unknowingly".' by Anupam Kher.**

**Already read 'Cricket World Cup: The Indian Challenge' by Ashis Ray.**

**7) var myObject = {**

**foo: "bar",**

**func: function() {**

**var self = this;**

**console.log("outer func: this.foo = " + this.foo);**

**console.log("outer func: self.foo = " + self.foo);**

**(function() {**

**console.log("inner func: this.foo = " + this.foo);**

**console.log("inner func: self.foo = " + self.foo);**

**}());**

**}**

**};**

**myObject.func();**

**Output: node /tmp/vhfvdjaREt.js**

**outer func: this.foo = bar**

**outer func: self.foo = bar**

**inner func: this.foo = undefined**

**inner func: self.foo = bar**

**8) function foo1() {**

**return { bar: "hello" };**

**}**

**function foo2() {**

**return**

**{ bar: "hello" };**

**}**

**console.log(foo1());**

**console.log(foo2());**

**Output:node /tmp/vhfvdjaREt.js**

**{ bar: 'hello' }**

**Undefined**

**9) var obj = {}**

**var arr = ['zebra', 'horse'];**

**arr.forEach(function(k) {**

**obj[k] = undefined;**

**})**

**console.log(obj);**

**Output: node /tmp/vhfvdjaREt.js**

**{ zebra: undefined, horse: undefined }**

**10 )console.log(1 + "2" + "2");**

**console.log(1 + +"2" + "2");**

**console.log(1 + -"1" + "2");**

**console.log(+"1" + "1" + "2");**

**console.log( "A" - "B" + "2");**

**console.log( "A" - "B" + 2);**

**output:node /tmp/vhfvdjaREt.js**

**122**

**32**

**02**

**112**

**NaN2**

**NaN**