**Example: Square Root of a Number**

// take the input from the user

const number = prompt('Enter the number: ');

const result = Math.sqrt(number);

console.log(`The square root of ${number} is ${result}`);

[Run Code](https://www.programiz.com/javascript/online-compiler)

**Output**

Enter the number: 9

The square root of 9 is 3

**Using es6(ES2015) Destructuring assignment**

//JavaScript program to swap two variables

//take input from the users

let a = prompt('Enter the first variable: ');

let b = prompt('Enter the second variable: ');

//using destructuring assignment

[a, b] = [b, a];

console.log(`The value of a after swapping: ${a}`);

console.log(`The value of b after swapping: ${b}`);

[Run Code](https://www.programiz.com/javascript/online-compiler)

**Output**

Enter the first variable: 4

Enter the second variable: 2

The value of a after swapping: 2

The value of b after swapping: 4

**Using Arithmetic Operators**

//JavaScript program to swap two variables

//take input from the users

let a = parseInt(prompt('Enter the first variable: '));

let b = parseInt(prompt('Enter the second variable: '));

// addition and subtraction operator

a = a + b;

b = a - b;

a = a - b;

console.log(`The value of a after swapping: ${a}`);

console.log(`The value of b after swapping: ${b}`);

[Run Code](https://www.programiz.com/javascript/online-compiler)

**Output**

Enter the first variable: 4

Enter the second variable: 2

The value of a after swapping: 2

The value of b after swapping: 4

**Example 1: Generate a Random Number**

// generating a random number

const a = Math.random();

console.log(a);

[Run Code](https://www.programiz.com/javascript/online-compiler)

**Output**

0.5856407221615856

**Example 2: Get a Random Number between 1 and 10**

// generating a random number

const a = Math.random() \* (10-1) + 1

console.log(`Random value between 1 and 10 is ${a}`);

[Run Code](https://www.programiz.com/javascript/online-compiler)

**Output**

Random value between 1 and 10 is 7.392579122270686

**Example 3: Integer Value between 1 and 10**

// generating a random number

const a = Math.floor(Math.random() \* (10 - 1)) + 1;

console.log(`Random value between 1 and 10 is ${a}`);

[Run Code](https://www.programiz.com/javascript/online-compiler)

**Output**

Random value between 1 and 10 is 2

**Example 4: Integer Value between Two Numbers (Inclusive)**

// input from the user

const min = parseInt(prompt("Enter a min value: "));

const max = parseInt(prompt("Enter a max value: "));

// generating a random number

const a = Math.floor(Math.random() \* (max - min + 1)) + min;

// display a random number

console.log(`Random value between ${min} and ${max} is ${a}`);

[Run Code](https://www.programiz.com/javascript/online-compiler)

**Output**

Enter a min value: 1

Enter a max value: 50

Random value between 1 and 50 is 47

**Example 2: Check Number Type with nested if...else**

// check if the number is positive, negative or zero

const number = prompt("Enter a number: ");

if (number >= 0) {

if (number == 0) {

console.log("The number is zero");

} else {

console.log("The number is positive");

}

} else {

console.log("The number is negative");

}

[Run Code](https://www.programiz.com/javascript/online-compiler)

**Output**

Enter a number: 0

You entered number zero

**Example 2: Using Ternary Operator**

// program to check if the number is even or odd

// take input from the user

const number = prompt("Enter a number: ");

// ternary operator

const result = (number % 2 == 0) ? "even" : "odd";

// display the result

console.log(`The number is ${result}.`);

[Run Code](https://www.programiz.com/javascript/online-compiler)

**Output**

Enter a number: 5

The number is odd.

**Example 1: Largest Number Among Three Numbers**

// program to find the largest among three numbers

// take input from the user

const num1 = parseFloat(prompt("Enter first number: "));

const num2 = parseFloat(prompt("Enter second number: "));

const num3 = parseFloat(prompt("Enter third number: "));

let largest;

// check the condition

if(num1 >= num2 && num1 >= num3) {

largest = num1;

}

else if (num2 >= num1 && num2 >= num3) {

largest = num2;

}

else {

largest = num3;

}

// display the result

console.log("The largest number is " + largest);

[Run Code](https://www.programiz.com/javascript/online-compiler)

**Output**

Enter first number: -7

Enter second number: -5

Enter third number: -1

The largest number is -1

**Example2: Using Math.max()**

// program to find the largest among three numbers

// take input from the user

const num1 = parseFloat(prompt("Enter first number: "));

const num2 = parseFloat(prompt("Enter second number: "));

const num3 = parseFloat(prompt("Enter third number: "));

const largest = Math.max(num1, num2, num3);

// display the result

console.log("The largest number is " + largest);

[Run Code](https://www.programiz.com/javascript/online-compiler)

**Output**

Enter first number: 5

Enter second number: 5.5

Enter third number: 5.6

The largest number is 5.6

**Example 1: Sum of Natural Numbers Using for Loop**

// program to display the sum of natural numbers

// take input from the user

const number = parseInt(prompt('Enter a positive integer: '));

let sum = 0;

// looping from i = 1 to number

// in each iteration, i is increased by 1

for (let i = 1; i <= number; i++) {

sum += i;

}

console.log('The sum of natural numbers:', sum);

[Run Code](https://www.programiz.com/javascript/online-compiler)

**Output**

Enter a positive integer: 100

The sum of natural numbers: 5050

**Example: Program to Guess a Number**

// program where the user has to guess a number generated by a program

function guessNumber() {

// generating a random integer from 1 to 10

const random = Math.floor(Math.random() \* 10) + 1;

// take input from the user

let number = parseInt(prompt('Guess a number from 1 to 10: '));

// take the input until the guess is correct

while(number !== random) {

number = parseInt(prompt('Guess a number from 1 to 10: '));

}

// check if the guess is correct

if(number == random) {

console.log('You guessed the correct number.');

}

}

// call the function

guessNumber();

[Run Code](https://www.programiz.com/javascript/online-compiler)

**Output**

Guess a number from 1 to 10: 1

Guess a number from 1 to 10: 8

Guess a number from 1 to 10: 5

Guess a number from 1 to 10: 4

You guessed the correct number.

**Example: Sort Words in Alphabetical Order**

// program to sort words in alphabetical order

// take input

const string = prompt('Enter a sentence: ');

// converting to an array

const words = string.split(' ');

// sort the array elements

words.sort();

// display the sorted words

console.log('The sorted words are:');

for (const element of words) {

console.log(element);

}

[Run Code](https://www.programiz.com/javascript/online-compiler)

**Output**

Enter a sentence: I am learning JavaScript

The sorted words are:

I

JavaScript

am

learning

**Example: Replace First Occurrence of a Character in a String**

// program to replace a character of a string

const string = 'Mr Red has a red house and a red car';

// replace the characters

const newText = string.replace('red', 'blue');

// display the result

console.log(newText);

[Run Code](https://www.programiz.com/javascript/online-compiler)

**Output**

Mr Red has a blue house and a red car

**Example 2: Replace Character of a String Using RegEx**

// program to replace a character of a string

const string = 'Mr Red has a red house and a red car';

// regex expression

const regex = /red/g;

// replace the characters

const newText = string.replace(regex, 'blue');

// display the result

console.log(newText);

[Run Code](https://www.programiz.com/javascript/online-compiler)

**Output**

Mr Red has a blue house and a blue car

**Example 1: Check String Using Built-in Methods**

// program to check if a string starts with 'S' and ends with 'G'

function checkString(str) {

// check if the string starts with S and ends with G

if(str.startsWith('S') && str.endsWith('G')) {

console.log('The string starts with S and ends with G');

}

else if(str.startsWith('S')) {

console.log('The string starts with S but does not end with G');

}

else if(str.endsWith('G')) {

console.log('The string starts does not with S but end with G');

}

else {

console.log('The string does not start with S and does not end with G');

}

}

// take input

let string = prompt('Enter a string: ');

checkString(string);

[Run Code](https://www.programiz.com/javascript/online-compiler)

**Output**

Enter a string: String

The string starts with S but does not end with G

**Example 1: Using startsWith()**

// program to check if a string starts with another string

const string = 'hello world';

const toCheckString = 'he';

if(string.startsWith(toCheckString)) {

console.warn('The string starts with "he".');

}

else {

console.warn(`The string does not starts with "he".`);

}

[Run Code](https://www.programiz.com/javascript/online-compiler)

**Output**

The string starts with "he".

In the above program, the startsWith() method is used to determine if the string starts with **'he'**. The startsWith() method checks if the string starts with the particular string.

The if...else statement is used to check the condition.

**Example 2: Using lastIndexOf()**

// program to check if a string starts with another string

const string = 'hello world';

const toCheckString = 'he';

let result = string.lastIndexOf(toCheckString, 0) === 0;

if(result) {

console.warn('The string starts with "he".');

}

else {

console.warn(`The string does not starts with "he".`);

}

[Run Code](https://www.programiz.com/javascript/online-compiler)

**Output**

The string starts with "he".

**Example 1: Trim a String**

// program to trim a string

const string = ' Hello World ';

const result = string.trim();

console.log(result);

[Run Code](https://www.programiz.com/javascript/online-compiler)

**Output**

Hello World

**Example 1: Check String with includes()**

// program to check if a string contains a substring

// take input

const str = prompt('Enter a string:');

const checkString = prompt('Enter a string that you want to check:');

// check if string contains a substring

if(str.includes(checkString)) {

console.log(`The string contains ${checkString}`);

} else {

console.log(`The string does not contain ${checkString}`);

}

[Run Code](https://www.programiz.com/javascript/online-compiler)

**Output**

Enter a string: JavaScript is fun

Enter a string that you want to check: fun

The string contains fun

**Example 2: Check String with indexOf()**

// program to check if a string contains a substring

// take input

const str = prompt('Enter a string:');

const checkString = prompt('Enter a string that you want to check:');

// check if string contains a substring

if(str.indexOf(checkString) !== -1) {

console.log(`The string contains ${checkString}`);

} else {

console.log(`The string does not contain ${checkString}`);

}

[Run Code](https://www.programiz.com/javascript/online-compiler)

**Output**

Enter a string: JavaScript is fun

Enter a string that you want to check: fun

The string contains fun