**1) Minimum of Two and Three Numbers**

function minimumOfTwo(num1, num2) {

let newMin = 0;

newMin = Math.min(num1, num2);

return newMin;

}

function minimumOfThree(num1, num2, num3) {

let newMin = 0;

let oldMin = minimumOfTwo(num1, num2);

newMin = Math.min(oldMin, num3);

return newMin;

}

function minTwoThree(num1, num2, num3) {

let min2 = minimumOfTwo(num1, num2);

let response = prompt("Would you like to enter a third number? Y or N?")

if (response = "Y") {

num3 = prompt("Enter third number now: ")

let min3 = minimumOfThree(num1, num2, num3);

console.log(min3);

} else {

console.log(min2);

}

}

minTwoThree(34,54);

**2) Nth Term of the Series**

*//calculate the factorial*

function factorialCalc(i){

let factorial = 1;

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

factorial = factorial \* num;

}

return factorial;

}

*//nth term of the series: 1, 4, 15, 72, 420*

function seriesCalc(nth){

let nthTerm = (factorialCalc(nth) \* ((nth + 2)/2));

console.log(nthTerm);

}

seriesCalc(4);

*//nth term of the series: 1, 2, 6, 24, 120, 720*

function seriesCalc(nth){

let nthTerm = (factorialCalc(nth));

console.log(nthTerm);

}

seriesCalc(4);

*//find the nth term of the Fibonacci sequence*

function fibonacci(nth){

num1 = 0;

num2 = 1;

for(let num = 1; num <= nth; num++){

nextNum = num1 + num2;

num1 = num2;

num2 = nextNum;

}

return num1;

}

console.log(fibonacci(14));

**3) HCF and LCM of Two Numbers**

*//find the HCF*

let hcf;

function findHCF(num1, num2){

for(let i = 1; i <= num1 && i <= num2; i++){

if((num1%i == 0) && (num2%i == 0))

{

hcf = i;

}

}

return hcf;

}

console.log(findHCF(72,6));

*//find the LCM of two numbers*

function findLCM(num1, num2){

let minNum = Math.min(num1, num2);

let maxNum = Math.max(num1, num2);

let i = maxNum;

while(i%minNum !== 0){

i += maxNum;

}

return i;

}

console.log(findLCM(40,15));

**4) Better Calculator**

function optSelect() {

console.log("Please select an option -\nPress 1 to add\nPress 2 to subtract\nPress 3 to multiply\nPress 4 to divide\nPress 5 to quit");

let counter = 0;

let option;

do {

if (counter > 0) {

option = Number(prompt("Invalid option. Please enter a number 1-5."));

} else {

option = Number(prompt(""));

counter++;

}

} while (isNaN(option) || (option > 5) || (option < 1));

return option;

}

function error(num, opt) {

if (isNaN(num)) {

console.log("Invalid number, please try again.")

} else {

console.log(num);

optSelect(opt);

}

}

function calculate() {

let num1, num2, num3;

let opt = optSelect();

while ((opt != 5) && ((isNaN(num1)) || (isNaN(num2)))) {

if (opt == 1) {

num1 = Number(prompt("Please enter the first value you want to add: "));

num2 = Number(prompt("Please enter the second value you want to add: "));

num3 = num1 + num2;

error(num3, opt);

} else if (opt == 2) {

num1 = Number(prompt("Please enter the value you want to subtract from: "));

num2 = Number(prompt("Please enter the value you are subtracting: "));

num3 = num1 - num2;

error(num3, opt);

} else if (opt == 3) {

num1 = Number(prompt("Please enter the first value you want to multiply: "));

num2 = Number(prompt("Please enter the second value you want to multiply: "));

num3 = num1 \* num2;

error(num3, opt);

} else if (opt == 4) {

num1 = Number(prompt("Please enter the value you want to divide from: "));

num2 = Number(prompt("Please enter the value you are dividing by: "));

num3 = num1 / num2;

error(num3, opt);

}

}

}

calculate();

**5) Multiplication Tables**

*//one mult table*

let x, a, b;

multiTable();

function multiTable() {

x = Number(prompt("Enter the starting base number for your multiplication table: "));

if(isNaN(x)){

console.log("Invalid number entered.")

return;

}

a = Number(prompt("Enter the number you want to start multiplying by: "));

if(isNaN(a)){

console.log("Invalid number entered.")

return;

}

b = Number(prompt("Enter the number you want to multiply by last: "));

if(isNaN(b)){

console.log("Invalid number entered.")

return;

}

let a2 = a;

for (a; a <= b; a++) {

let productX = x \* a;

console.log(x + `\*` + a + `=` + productX);

}

multiTable();

}*//two mult tables*

let x, y, a, b;

multiTables();

function multiTables() {

x = Number(prompt("Enter the starting base number for your multiplication table: "));

if(isNaN(x)){

console.log("Invalid number entered.")

return;

}

y = Number(prompt("Enter the last base number for your multiplication table: "))

if(isNaN(y)){

console.log("Invalid number entered.")

return;

}

a = Number(prompt("Enter the number you want to start multiplying by: "));

if(isNaN(a)){

console.log("Invalid number entered.")

return;

}

b = Number(prompt("Enter the number you want to multiply by last: "));

if(isNaN(b)){

console.log("Invalid number entered.")

return;

}

for (a; a <= b; a++) {

let productX = x \* a;

console.log(x + `\*` + a + `=` + productX);

}

console.log("");

for (a2; a2 <= b; a2++) {

let productY = y \* a2;

console.log(y + `\*` + a2 + `=` + productY);

}

multiTables();

}