**Exercise 1: Hashtag Triangle**

let hashtag = "#";

for(let i = 1; i < 8; i++){

console.log(hashtag);

hashtag = (hashtag + "#");

}

**Exercise 2: FizzBuzz**

for(i = 0; i <= 100; i++){

if((i%3==0) && (i%5==0)){

console.log("FizzBuzz");

}

else if(i%3==0) {

console.log("Fizz");

}

else if(i%5==0){

console.log("Buzz");

}

else{

console.log(i);

}

}

**Exercise 3: Hashtag Chessboard**

for(i = 0; i < 8; i++){

if(i%2==0)

{

console.log(" # # # #");

}

else if(i%2==1)

{

console.log("# # # #")

}

}

**Exercise 4: Ascending Order**

*//Part 7: Multiples of 2 and 3, but not multiples of 12 (up to 100)*

console.log("--------Part 7--------");

for(i = 1; i <= 100; i++){

if(i%12 !== 0){

if((i%2) == 0 && (i%3) == 0){

console.log(i);

}

}

}

*//Part 6: Multiples of 2 or multiples of 3, but not multiples of both 2 and 3*

console.log("--------Part 6--------");

for(num = 1; num <= 50; num++){

if((num%2) == 0 || (num%3) == 0){

if((num%2) == 0 && (num%3) == 0){

continue;

}

console.log(num);

}

}

*//Part 5: The multiples of 5 from 0-50*

console.log("--------Part 5--------");

for(num = 0; num <= 50; num+=5){

console.log(num);

}

*//Part 4: All non-negative numbers divisible by 3 that are less than 25*

console.log("--------Part 4--------");

for(num = 0; num < 25; num++){

if(num%3 == 0){

console.log(num)

}

}

*//Part 3: All non-negative odd numbers less than 25*

console.log("--------Part 3--------");

for(num = 1; num < 25; num+=2){

console.log(num);

}

*//Part 2: All non-negative numbers less than 25*

console.log("--------Part 2--------");

for(num = 1; num < 25; num+=1){

console.log(num);

}

*//Part 1: All numbers 1-50*

console.log("--------Part 1--------");

for(num = 1; num <= 50; num++){

console.log(num);

}

**Exercise 5: Descending Order**

*//Part 7: Multiples of 2 and 3, but not multiples of 12 (up to 100)*

console.log("--------Part 7--------");

for (i = 100; i > 0; i--) {

if (i % 12 !== 0) {

if ((i % 2) == 0 && (i % 3) == 0) {

console.log(i);

}

}

}

*//Part 6: Multiples of 2 or multiples of 3, but not multiples of both 2 and 3*

console.log("--------Part 6--------");

for (num = 50; num > 0; num--) {

if ((num % 2) == 0 || (num % 3) == 0) {

if ((num % 2) == 0 && (num % 3) == 0) {

continue;

}

console.log(num);

}

}

*//Part 5: The multiples of 5 from 0-50*

console.log("--------Part 5--------");

for (num = 50; num > 0; num -= 5) {

console.log(num);

}

*//Part 4: All non-negative numbers divisible by 3 that are less than 25*

console.log("--------Part 4--------");

for (num = 25; num > 0; num--) {

if (num % 3 == 0) {

console.log(num)

}

}

*//Part 3: All non-negative odd numbers less than 25*

console.log("--------Part 3--------");

for (num = 25; num > 1; num -= 2) {

if(num == 25){

continue;

}

console.log(num);

}

*//Part 2: All non-negative numbers less than 25*

console.log("--------Part 2--------");

for (num = 25; num >=1; num -= 1) {

console.log(num);

}

*//Part 1: All numbers 1-50*

console.log("--------Part 1--------");

for (num = 50; num >=1; num--) {

console.log(num);

}

**Exercise 6: Multiplication Table of 3**

for(num = 1; num <= 10; num++){

console.log(`3 \* ` + num + ` = ` + `${3\*num}`);

}

**Exercise 7: Multiplication Table of 17**

for(num = 1; num <= 10; num++){

console.log(`17 \* ` + num + ` = ` + `${17\*num}`);

}

**Exercise 8: Calculator**

*//option selection*

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 option;

let counter = 0;

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));

*//addition calculator*

if (option == 1) {

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

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

if (isNaN(firstAddValue) || isNaN(secondAddValue)) {

console.log("Invalid value(s) entered.");

return;

}

let endAddValue = (firstAddValue + secondAddValue);

console.log("Your final added value is: " + endAddValue);

}

*//subtraction calculator*

if (option == 2) {

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

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

if (isNaN(firstSubValue) || isNaN(secondSubValue)) {

console.log("Invalid value(s) entered.");

return;

}

let endSubValue = (firstSubValue - secondSubValue);

console.log("Your final subtracted value is: " + endSubValue);

}

*//multiplication calculator*

if (option == 3) {

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

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

if (isNaN(firstMultValue) || isNaN(secondMultValue)) {

console.log("Invalid value(s) entered.");

return;

}

let endMultValue = (firstMultValue \* secondMultValue);

console.log("Your final multiplied value is: " + endMultValue);

}

*//division calculator*

if (option == 4) {

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

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

if (isNaN(firstDivValue) || isNaN(secondDivValue)) {

console.log("Invalid value(s) entered.");

return;

}

let endDivValue = (firstDivValue / secondDivValue);

console.log("Your final divided value is: " + endDivValue);

}

*//quit calculator*

if(option == 5){

return;

}

**Exercises 9/10: NaN Function**

function checkNaN(num){

value = Number(num);

return value !== value;

}

let input = Number(prompt("Please enter a valid number: "));

checkNaN(input);

console.log(value);