//tapwiriq 1.

function numSum(arr){

let sum=0;

for(let f of arr){

if(typeof f =="object"){

sum+=numSum(f);

}

else if(typeof f =="number"){

sum+=f;

}

}

return sum;

}

console.log(numSum(ms));

//tapwiriq 2;3.

function numCount(arr){

if(typeof arr=="object"){

let counter = 0;

for(let f of arr){

if(typeof f =="object"){

counter=counter+numSum(f);

}

else if(typeof f=="number"){

++counter;

}

}

return counter;

}

else{

console.log("argument is not object!");

}

}

function numSum(arr){

if(typeof arr=="object"){

let sum= 0;

for(let f of arr){

if(typeof f =="object"){

sum+=numSum(f);

}

else if(typeof f=="number"){

sum+=f;

}

}

return sum;

}

else{

console.log("argument is not object!");

}

}

function numAverage(array){

if(typeof array=="object"){

let sum=numSum(array);

let counter=numCount(array);

return sum/counter;

}else{

console.log("Error");

}

}

console.log(numAverage(ms));

//tapwiriq 4.

function wordCount(arr){

let count=0;

for(let f of arr){

if(typeof f=="object"){

count+=wordCount(f);

}

else if(typeof f =="string"){

count++;

}

}

return count;

}

console.log(wordCount(ms));

//tapwiriq 5.

function wordCount(arr){

for(let f of arr){

let count=0;

if(typeof f =="object"){

wordCount(f);

}

else if (typeof f =="string"){

for(let i of f){

count++;

}

console.log(f+"--->"+count)

}

}

}

wordCount(ms)

//tapwiriq 6.

function wordChange(arr){

for(let f of arr){

if(typeof f =="object"){

wordChange(f);

}

else if(typeof f =="string"){

let charCode="";

for(let i of f){

charCode+=i.charCodeAt();

}

console.log(f+"--->"+charCode)

}

}

}

wordChange(ms)

//tapwiriq 7.

function wordInverse(arr){

for(let f of arr){

if(typeof f =="object"){

wordInverse(f);

}

else if (typeof f =="string"){

let newWord="";

for(let i=f.length-1;i>=0;i--){

newWord+=f[i];

}

console.log(f+"--->"+newWord)

}

}

}

wordInverse(ms)

//tapwiriq 8.

function word(arr){

let sait=["a","e","i","o"];

for(let f of arr){

if(typeof f =="object"){

word(f);

}

else if(typeof f =="string"){

console.log(f)

for(let i of f ){

for(let d of sait){

if(i==d){

console.log(i);

}

}

}

}

}

}

word(ms);

//tapwiriq 9.

function wordChange(arr){

for(let f of arr){

if(typeof f =="object"){

wordChange(f);

}

else if(typeof f =="string"){

let newWord="";

for(let i of f){

let charCode=i.charCodeAt();

if(charCode>=65&&charCode<=90){

newWord+=String.fromCharCode(charCode+32);

}

else{

newWord+=String.fromCharCode(charCode-32);

}

}

console.log(f+"--->"+newWord)

}

}

}

wordChange(ms)

//tapwiriq 10.

function wordUnical(arr){

let sait=["e","a","i","o"];

for(let f of arr){

if(typeof f =="object"){

wordUnical(f);

}

else if(typeof f =="string"){

console.log(f)

for(let d of sait ){

let count=0;

for(let i of f){

if(i==d){

count++

}

}

if(count==1){

console.log(d)

}

}

}

}

}

wordUnical(ms)

//tapwiriq 11.

//While ile.

function factorial(num){

let fact=1;

while(num>=1){

fact\*=num;

num--;

}

return fact;

}

console.log(factorial(5));

//For ile.

function numFact(num){

let fact=1;

for(let f=num-1;f>=1;f--){

fact\*=num;

num--;

}

console.log(fact);

}

numFact(5);

//Rekursiya ile.

function factorialNum(num){

let fact=1;

if(num==1){

return num;

}

else{

fact\*=num\*factorialNum(num-1);

}

return fact;

}

console.log(factorialNum(4));