EXERCÍCIOS COM FUNÇÃO

1- Soma do vetor
https://neps.academy/br/exercise/326

```cpp
#include <bits/stdc++.h>

using namespace std;

int soma(int n, int v[]){

    int s=0;

    for(int i=0; i<n; i++){

        s+=v[i];
    }

    return s;
}


int main(){

    int n;
    int vet[100005];

    cin>>n;

    for(int i=0; i<n; i++){
        cin>>vet[i];
    }

    cout<<soma(n, vet);

    return 0;
}
```

2- Fatorial
https://neps.academy/br/exercise/174

```cpp
#include <bits/stdc++.h>

using namespace std;

int fatorial(int n){

    if(n==1 or n==0)return 1;

    return fatorial(n-1)*n;
}

int main(){

    int n;
    cin>>n;
    cout<<fatorial(n);

    return 0;
}
```

3- Função Primo
https://neps.academy/br/exercise/175

```cpp
#include <bits/stdc++.h>

using namespace std;

bool eh_primo(int n){

    if(n==1 or n==0)return false;

    for(int i=2; i<sqrt(n); i++){

        if(n%i==0){
```

```
            return false;
        }
    }

    return true;
}


int main(){

    int x;
    cin>>x;
    if(eh_primo(x)==true)cout<<"S";
    else cout<<"N";

    return 0;
}
```

4- Fibonacci
https://neps.academy/br/exercise/257

```
#include <bits/stdc++.h>

using namespace std;

int fib(int n){

    if(n==1 or n==0)return 1;
    return fib(n-1)+fib(n-2);
}


int main(){

    int x;
```

```
    cin>>x;

    cout<<fib(x);


    return 0;
}
```

EXERCÍCIOS COM ORDENAÇÃO E STRUCT

1- Matryoshka
https://neps.academy/br/exercise/246

```
#include <bits/stdc++.h>

using namespace std;

int main(){

    int n, v[100005], aux[100005], resp[100005];

    cin>>n;

    for(int i=0; i<n; i++){

        cin>>v[i];
        aux[i]=v[i];
    }

    sort(v, v+n);
```

```
    int cont=0, j=0;
    for(int i=0; i<n; i++){

        if(v[i]!=aux[i]){

            cont++;
            resp[j]=v[i];
            j++;
        }
    }

    cout<<cont<<endl;

    for(int i=0; i<j; i++){

        cout<<resp[i]<<" ";
    }

    return 0;
}
```

2- Média das provas
https://neps.academy/br/exercise/731

```
#include <bits/stdc++.h>

using namespace std;

struct media{

  int nota;
  int peso;
};

int main(){
```

```
    media v[3];
    int resp=0, soma_peso=0;

    for(int i=0; i<3; i++){

        cin>>v[i].nota>>v[i].peso;

    }

    for(int i=0; i<3; i++){

        resp+=v[i].nota*v[i].peso;
        soma_peso+=v[i].peso;
    }

    cout<<resp/soma_peso;




    return 0;
}
```

3- Olímpiadas
https://neps.academy/br/exercise/243

```
#include <bits/stdc++.h>

using namespace std;

struct medalhas{

    int ouro;
    int prata;
    int bronze;
    int id;
};
```

```cpp
bool comp(medalhas a, medalhas b){

    if(a.ouro!=b.ouro)return a.ouro>b.ouro;
    else if(a.prata!=b.prata)return a.prata>b.prata;
    else if(a.bronze!=b.bronze)return a.bronze>b.bronze;
    return a.id<b.id;
}

medalhas atleta[105];

int main(){



    int n, m;

    cin>>n>>m;

    for(int i=0; i<n; i++)atleta[i].id=i+1;

    for(int i=0; i<m; i++){

        int o, p, b;
        cin>>o>>p>>b;

        atleta[o-1].ouro++;
        atleta[p-1].prata++;
        atleta[b-1].bronze++;
    }

    sort(atleta, atleta+n, comp);

    for(int i=0; i<n; i++)cout<<atleta[i].id<<" ";



    return 0;
}
```