

# Mega Project

## Summer Training

### *Problem Solving Tasks*

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**Task 1 -> Fixed Password (1114)**

**Task 2 -> Type of Fuel (1134)**

**Task 3 -> Walking in Time (2235)**

**Task 4 -> Hard Choice (2702)**

**Task 5 -> Divisor1 (1157)**

**Task 6 -> Bino's Challenge (2060)**

# Task 1: Fixed Password

Problem Code: 1114

Beecrowd Accepted:

SUBMISSION # 29089355	
PROBLEM:	1114 - Fixed Password
ANSWER:	Accepted
LANGUAGE:	C++17 (g++ 7.3.0, -std=c++17 -O2 -lm) [+0s]
RUNTIME:	0.000s
FILE SIZE:	361 Bytes
MEMORY:	-
SUBMISSION:	8/3/22, 6:16:04 AM

  

SOURCE CODE	
1	#include <iostream>
2	
3	using namespace std;
4	
5	int main() {
6	
7	int password;
8	bool flag = true;
9	while (flag){
10	cin>>password;
11	if (password == 2002){
12	cout<<"Acesso Permitido"<<endl;
13	flag = false;
14	}
15	else{
16	cout<<"Senha Invalida"<<endl;
17	}
18	}
19	
20	return 0;

Source Code:

```
#include <iostream>
using namespace std;
int main(){

    int password;
    bool flag = true;
    while (flag){
        cin>>password;
        if (password == 2002){
            cout<<"Acesso Permitido"<<endl;
            flag = false;
        }
        else{
            cout<<"Senha invalida"<<endl;
        }
    }
    return 0;
}
```

## Task 2: Type of Fuel

Problem Code: 1134

Beecrowd Accepted:

SUBMISSION # 29089594	
PROBLEM:	1134 - Type of Fuel
ANSWER:	Accepted
LANGUAGE:	C++17 (g++ 7.3.0, -std=c++17 -O2 -lm) [+0s]
RUNTIME:	0.000s
FILE SIZE:	646 Bytes
MEMORY:	-
SUBMISSION:	8/3/22, 7:08:04 AM

  

SOURCE CODE	
1	#include <iostream>
2	
3	using namespace std;
4	
5	int main() {
6	int fuel_type;
7	int alcholCounter = 0, dieselCounter = 0, gasolineCounter = 0 ;
8	cin >> fuel_type;
9	while(fuel_type != 4){
10	if(fuel_type == 1){
11	alcholCounter++;
12	}
13	else if(fuel_type == 2){
14	gasolineCounter++;
15	}
16	else if(fuel_type == 3){
17	dieselCounter++;
18	}
19	cin >> fuel_type;
20	}

Source Code:

```
#include <iostream>
using namespace std;
int main(){
    int fuel_type;
    int alcholCounter = 0, dieselCounter = 0, gasolineCounter = 0 ;
    cin >> fuel_type;
    while(fuel_type != 4){
        if(fuel_type == 1){
            alcholCounter++;
        }
        else if(fuel_type == 2){
            gasolineCounter++;
        }
        else if(fuel_type == 3){
            dieselCounter++;
        }
        cin >> fuel_type;
    }
    cout<<"MUITO OBRIGADO"<<endl;
    cout<<"Alcool: "<<alcholCounter<<endl;
    cout<<"Gasolina: "<<gasolineCounter<<endl;
    cout<<"Diesel: "<<dieselCounter<<endl;
    return 0;
}
```

# Task 3: Walking in Time

Problem Code: 2235

Beecrowd Accepted:

SUBMISSION # 29103696	
PROBLEM:	2235 - Walking in Time
ANSWER:	Accepted
LANGUAGE:	C++17 (g++ 7.3.0, -std=c++17 -O2 -lm) [+0s]
RUNTIME:	0.000s
FILE SIZE:	471 Bytes
MEMORY:	-
SUBMISSION:	8/4/22, 4:54:41 AM

SOURCE CODE	
1	#include <iostream>
2	using namespace std;
3	int main(){
4	int a, b, c;
5	cin >> a >> b >> c;
6	bool event1 = a - b == 0;
7	bool event2 = a - c == 0;
8	bool event3 = b - c == 0;
9	bool event4 = (a + b) - c == 0;
10	bool event5 = (a + c) - b == 0;
11	bool event6 = (b + c) - a == 0;
12	if(event1    event2    event3    event4    event5    event6){
13	cout << "S" << endl;
14	}
15	else{
16	cout << "N" << endl;
17	}
18	return 0;
19	}

Source Code:

```
#include <iostream>
using namespace std;
int main(){
    int a, b, c;
    cin >> a >> b >> c;
    bool event1 = a - b == 0;
    bool event2 = a - c == 0;
    bool event3 = b - c == 0;
    bool event4 = (a + b) - c == 0;
    bool event5 = (a + c) - b == 0;
    bool event6 = (b + c) - a == 0;
    if(event1 || event2 || event3 || event4 || event5 || event6){
        cout << "S" << endl;
    }
    else{
        cout << "N" << endl;
    }
    return 0;
}
```

## Task 2: Hard Choice

Problem Code: 2702

Beecrowd Accepted:

SUBMISSION # 29103993	
PROBLEM:	2702 - Hard Choice
ANSWER:	Accepted
LANGUAGE:	C++17 (g++ 7.3.0, -std=c++17 -O2 -lm) [+0s]
RUNTIME:	0.000s
FILE SIZE:	829 Bytes
MEMORY:	-
SUBMISSION:	8/4/22, 5:47:17 AM

  

SOURCE CODE	
1	#include <iostream>
2	using namespace std;
3	int main(){
4	int available_chicken, available_beef, available_pasta;
5	int required_chicken, required_beef, required_pasta;
6	cin>>available_chicken>>available_beef>>available_pasta;
7	cin>>required_chicken>>required_beef>>required_pasta;
8	int un_recived_chicken = 0, un_recived_beef = 0, un_recived_pasta = 0;
9	if(required_chicken > available_chicken){
10	un_recived_chicken = required_chicken - available_chicken;
11	}
12	if(required_beef > available_beef){
13	un_recived_beef = required_beef - available_beef;
14	}
15	if(required_pasta > available_pasta){
16	un_recived_pasta = required_pasta - available_pasta;
17	}
18	int result = un_recived_chicken + un_recived_beef + un_recived_pasta;
19	cout<<result<<endl;
20	return 0;

Source Code:

```
#include <iostream>
using namespace std;
int main(){
    int available_chicken, available_beef, available_pasta;
    int required_chicken, required_beef, required_pasta;
    cin>>available_chicken>>available_beef>>available_pasta;
    cin>>required_chicken>>required_beef>>required_pasta;
    int un_recived_chicken = 0, un_recived_beef = 0, un_recived_pasta = 0;
    if(required_chicken > available_chicken){
        un_recived_chicken = required_chicken - available_chicken;
    }
    if(required_beef > available_beef){
        un_recived_beef = required_beef - available_beef;
    }
    if(required_pasta > available_pasta){
        un_recived_pasta = required_pasta - available_pasta;
    }
    int result = un_recived_chicken + un_recived_beef + un_recived_pasta;
    cout<<result<<endl;
    return 0;
}
```

## Task 2: Divisor1

Problem Code: 1157

Beecrowd Accepted:

SUBMISSION # 29102946	
PROBLEM:	1157 - Divisors I
ANSWER:	Accepted
LANGUAGE:	C++17 (g++ 7.3.0, -std=c++17 -O2 -lm) [+0s]
RUNTIME:	0.000s
FILE SIZE:	208 Bytes
MEMORY:	-
SUBMISSION:	8/4/22, 3:14:01 AM

  

SOURCE CODE	
1	#include <iostream>
2	using namespace std;
3	int main(){
4	int n;
5	cin >> n;
6	for(int i = 1; i <= n; i++){
7	if(n % i == 0){
8	cout << i << endl;
9	}
10	}
11	return 0;
12	}

Source Code:

```
#include <iostream>
using namespace std;
int main(){
    int n;
    cin >> n;
    for(int i = 1; i <= n; i++){
        if(n % i == 0){
            cout << i << endl;
        }
    }
    return 0;
}
```

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## Task 2: Bino's Challenge

**Problem Code: 2060**

**Beecrowd Accepted:**

SUBMISSION # 29103273	
PROBLEM:	2060 - Bino's Challenge
ANSWER:	Accepted
LANGUAGE:	C++17 (g++ 7.3.0, -std=c++17 -O2 -lm) [+0s]
RUNTIME:	0.000s
FILE SIZE:	742 Bytes
MEMORY:	-
SUBMISSION:	8/4/22, 3:58:56 AM

  

SOURCE CODE	
1	#include <iostream>
2	using namespace std;
3	int main(){
4	int n;
5	int counter2 = 0, counter3 = 0, counter4 = 0, counter5 = 0;
6	cin >> n;
7	int arr[n];
8	for(int i = 0; i < n; i++){
9	cin>>arr[i];
10	}
11	for(int i = 0; i < n; i++){
12	if(arr[i] % 2 == 0){
13	counter2++;
14	}
15	if(arr[i] % 3 == 0){
16	counter3++;
17	}
18	if(arr[i] % 4 == 0){
19	counter4++;
20	}
21	}
22	}

**Source Code:**

```
#include <iostream>
using namespace std;
int main(){
    int n;
    int counter2 = 0, counter3 = 0, counter4 = 0, counter5 = 0;
    cin >> n;
    int arr[n];
    for(int i = 0; i < n; i++){
        cin>>arr[i];
    }
    for(int i = 0; i < n; i++){
        if(arr[i] % 2 == 0){counter2++;}
        if(arr[i] % 3 == 0){counter3++;}
        if(arr[i] % 4 == 0){counter4++;}
        if(arr[i] % 5 == 0){counter5++;}
    }
    cout<<counter2<<" Multiplo(s) de 2"<<endl;
    cout<<counter3<<" Multiplo(s) de 3"<<endl;
    cout<<counter4<<" Multiplo(s) de 4"<<endl;
    cout<<counter5<<" Multiplo(s) de 5"<<endl;
    return 0;
}
```