Methods you can use in this library:

prime_factorization:

`std::vector<int> prime_factorization(int num)`

Returns the factored number in an vector (std::vector)

Example:

```
Prime_factorization PF;
std::vector <int> vr;
vr = PF.prime_factorization(12);
#Print the contenute of vr array
for(int x : pf)
{
std::cout << "pf :" <<  x << std::endl;
}
```

get_dividend_prime_factorization:

std::vector<int> get_dividend_prime_factorization()

returns the value of the quotients of the factor previously called (via the prime_factorization function) in a vector (std::vector)

Example:

```
Prime_factorization fi;
std::vecotor <int> vr;
vr = fi.get_dividend_prime_factorization();
for(int x : vr)
{
std::cout << "pf :" <<  x << std::endl;
}
```

get_prime_factors:

std::vector<int> get_prime_factors()

returns the value of the factors of the function factor previously called (via the prime_factorization function) in a vector (std::vector)

Example:

```
Prime_factorization fi;
std::vecotor <int> vr;
vr = fi.get_prime_factors();
for(int x : vr)
{
std::cout << "pf :" <<  x << std::endl;
}
```

LCM:

Int LCM(std::vector num ,bool show_calculation_LCM = false);

Returns the value of the lcm on an integer variable.

The variable ‘show_calculation_LCM’ allows you to print the factorization on the screen. by default it is disabled.

Example:

```
fibonacci fi;
std::vecotor <int> vr;
vr = fi.get_dividend_prime_factorization();
Prime_factorization lm;
int x;
x = lm.LCM({4,8,12,18});
#For show the factorization
#x = lm.LCM({4,8,12,18},true
std::cout << x << std::endl;
```

GCD:

Int GCD(std::vector num ,bool show_calculation_GCD = false);

Returns the value of the gcd on an integer variable.

The variable ‘show_calculation_GCD’ allows you to print the factorization on the screen. by default it is disabled.

Example:

32. fibonacci fi;
33. std::vecotor <int> vr;
34. vr = fi.get_dividend_prime_factorization();
35. Prime_factorization lm;
36. int x;
37. x = lm.gcd({4,8,12,18});
38. #For show the factorization
39. #x = lm.gcd({4,8,12,18},true
40. `std::cout << x << std::endl;`