

Sobrecarga: Operadores de negación (-, !)

Operadores de negación: ejemplo

```
// main.cpp
...
g = -f;
...

// fraction.h
...
class Fraction
{
    friend Fraction operator-(const Fraction & rhs);
    ...
}

// fraction.cpp
Fraction operator-(const Fraction & rhs)
{
    Fraction temp;
    temp.m_numerator = -rhs.m_numerator;
    temp.m_denominator = rhs.m_denominator;
    return temp;
}
```

Operadores de negación: ejemplo

```
// main.cpp
```

```
...
```

```
➡ g = -f;
```

```
...
```

```
// fraction.h
```

```
...
```

```
class Fraction
```

```
{
```

```
    friend Fraction operator-(const Fraction & rhs);
```

```
...
```

```
// fraction.cpp
```

```
Fraction operator-(const Fraction & rhs)
```

```
{
```

```
    Fraction temp;
```

```
    temp.m_numerator = -rhs.m_numerator;
```

```
    temp.m_denominator = rhs.m_denominator;
```

```
    return temp;
```

```
}
```

f en main

m_numerator: 9
m_denominator: 64

g en main

m_numerator: 9
m_denominator: 32

Operadores de negación: ejemplo

// main.cpp

...

➔ g = -f;

...

// fraction.h

...

class Fraction

{

friend Fraction operator-(const Fraction & rhs);

...

// fraction.cpp

➔ Fraction operator-(const Fraction & rhs)

{

Fraction temp;

temp.m_numerator = -rhs.m_numerator;

temp.m_denominator = rhs.m_denominator;

return temp;

}

f en main
rhs en operator-

m_numerator: 9
m_denominator: 64

g en main
*this en operator-

m_numerator: 9
m_denominator: 32

Operadores de negación: ejemplo

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Fraction operator-(const Fraction & rhs)
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```
{
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➔ Fraction temp;
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    temp.m_numerator = -rhs.m_numerator;
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    temp.m_denominator = rhs.m_denominator;
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    return temp;
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```
}
```

f en main
rhs en operator-

m_numerator: 9
m_denominator: 64

g en main
*this en operator-

m_numerator: 9
m_denominator: 32

temp

m_numerator: ?
m_denominator: ?

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➔ g = -f;
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rhs en operator-

m_numerator: 9
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g en main
*this en operator-

m_numerator: 9
m_denominator: 32

temp

m_numerator: -9
m_denominator: ?

Operadores de negación: ejemplo

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m_numerator: -9
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Operadores de negación: ejemplo

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```
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Fraction operator-(const Fraction & rhs)
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    Fraction temp;
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```
    temp.m_numerator = -rhs.m_numerator;
```

```
    temp.m_denominator = rhs.m_denominator;
```

```
➡ return temp;
```

```
}
```

f en main
rhs en operator-

m_numerator: 9
m_denominator: 64

g en main
*this en operator-

m_numerator: 9
m_denominator: 32

temp

m_numerator: -9
m_denominator: 64

Operadores de negación: ejemplo

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➔ g = -f;
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```
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```
// fraction.h
```

```
...
```

```
class Fraction
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Fraction operator-(const Fraction & rhs)
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    Fraction temp;
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    temp.m_numerator = -rhs.m_numerator;
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    temp.m_denominator = rhs.m_denominator;
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```
    return temp;
```

```
}
```

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rhs en operator-

m_numerator: 9
m_denominator: 64

g en main
*this en operator-

m_numerator: -9
m_denominator: 64

temp

m_numerator: -9
m_denominator: 64

Operadores de negación: ejemplo

```
// main.cpp
...
!f;
...

// fraction.h
...
class Fraction
{
    void operator!();
    ...
}

// fraction.cpp
void Fraction::operator ! ()
{
    int temp = m_numerator;
    m_numerator = m_denominator;
    m_denominator = temp;
    return;
}
```

Operadores de negación: ejemplo

```
// main.cpp
```

```
...
```

```
➔ !f;
```

```
...
```

```
// fraction.h
```

```
...
```

```
class Fraction
```

```
{
```

```
    void operator!();
```

```
...
```

```
// fraction.cpp
```

```
void Fraction::operator ! ()
```

```
{
```

```
    int temp = m_numerator;
```

```
    m_numerator = m_denominator;
```

```
    m_denominator = temp;
```

```
    return;
```

```
}
```

f en main

m_numerator: 9

m_denominator: 64

Operadores de negación: ejemplo

// main.cpp

...

➔ !f;

...

// fraction.h

...

class Fraction

{

void operator!();

...

// fraction.cpp

➔ void Fraction::operator ! ()

{

int temp = m_numerator;

m_numerator = m_denominator;

m_denominator = temp;

return;

}

f en main

*this en operator !

m_numerator: 9

m_denominator: 64

Operadores de negación: ejemplo

```
// main.cpp
```

```
...
```

```
➡ !f;
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// fraction.h
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```
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```

```
class Fraction
```

```
{
```

```
    void operator!();
```

```
...
```

```
// fraction.cpp
```

```
void Fraction::operator ! ()
```

```
{
```

```
➡ int temp = m_numerator;
```

```
    m_numerator = m_denominator;
```

```
    m_denominator = temp;
```

```
    return;
```

```
}
```

f en main

*this en operator !

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temp

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class Fraction
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```
// fraction.cpp
```

```
void Fraction::operator ! ()
```

```
{
```

```
    int temp = m_numerator;
```

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➔ m_numerator = m_denominator;
```

```
    m_denominator = temp;
```

```
    return;
```

```
}
```

f en main

*this en operator !

m_numerator: 64

m_denominator: 64

temp

9

Operadores de negación: ejemplo

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void Fraction::operator ! ()
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{
```

```
    int temp = m_numerator;
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    m_numerator = m_denominator;
```

```
➡ m_denominator = temp;
```

```
    return;
```

```
}
```

f en main

*this en operator !

temp

m_numerator: 64

m_denominator: 9

9

Operadores de negación: ejemplo

```
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void Fraction::operator ! ()
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    int temp = m_numerator;
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    m_numerator = m_denominator;
```

```
    m_denominator = temp;
```

```
➡ return;
```

```
}
```

f en main

*this en operator !

m_numerator: 64
m_denominator: 9

temp

9