문제 1번

선언부

```cpp
#include <iostream>
using namespace std;

class Add{
private:
    int a;
    int b;
public:
    void setValue(int x, int y);
    int calculate();
};

class Sub {
private:
    int a;
    int b;
public:
    void setValue(int x, int y);
    int calculate();
};

class Mul {
private:
    int a;
    int b;
public:
    void setValue(int x, int y);
    int calculate();
};

class Div {
private:
    int a;
    int b;
public:
    void setValue(int x, int y);
    int calculate();
};
```

구현부

```cpp
void Add::setValue(int x, int y) {
    a = x;
    b = y;
}
int Add::calculate() {
    return a + b;
}

void Sub::setValue(int x, int y) {
    a = x;
    b = y;
}
int Sub::calculate() {
    return a - b;
}

void Mul::setValue(int x, int y) {
    a = x;
    b = y;
}
int Mul::calculate() {
    return a * b;
}

void Div::setValue(int x, int y) {
    a = x;
    b = y;
}
int Div::calculate() {
    return a / b;
}
```

메인

```cpp
int main() {

    int x, y;
    char c;

    cout << "두 정수와 연산자를 입력하세요>>";
    cin >> x >> y >> c;
    if (c == '+' ) {
        Add a;
        a.setValue(x, y);
        cout << a.calculate() << endl;
    }
    else if (c == '-') {
        Sub s;
        s.setValue(x, y);
        cout << s.calculate() << endl;
    }
    else if (c == '*') {

        Mul m;
        m.setValue(x, y);
        cout << m.calculate() << endl;
    }
    else if (c == '/') {
        Div d;
        d.setValue(x, y);
        cout << d.calculate() << endl;
    }

}
```

문제 2번

선언부

```cpp
#ifndef CALCULATOR_H
#define CALCULATOR_H

class Add {
private:
    int a;
    int b;
public:
    void setValue(int x, int y);
    int calculate();
};

class Sub {
private:
    int a;
    int b;
public:
    void setValue(int x, int y);
    int calculate();
};

class Mul {
private:
    int a;
    int b;
public:
    void setValue(int x, int y);
    int calculate();
};

class Div {
private:
    int a;
    int b;
public:
    void setValue(int x, int y);
    int calculate();
};
#endif
```

구현부

```cpp
#include "calculator.h"

void Add::setValue(int x, int y) {
    a = x;
    b = y;
}
int Add::calculate() {
    return a + b;
}

void Sub::setValue(int x, int y) {
    a = x;
    b = y;
}
int Sub::calculate() {
    return a - b;
}

void Mul::setValue(int x, int y) {
    a = x;
    b = y;
}
int Mul::calculate() {
    return a * b;
}

void Div::setValue(int x, int y) {
    a = x;
    b = y;
}
int Div::calculate() {
    return a / b;
}
```

메인

```cpp
#include <iostream>
using namespace std;

#include "calculator.h"

int main() {
    int x, y;
    char c;

    cout << "두 정수와 연산자를 입력하세요>>";
    cin >> x >> y >> c;
    if (c == '+' ) {
        Add a;
        a.setValue(x, y);
        cout << a.calculate() << endl;
    }
    else if (c == '-') {
        Sub s;
        s.setValue(x, y);
        cout << s.calculate() << endl;
    }
    else if (c == '*') {
        Mul m;
        m.setValue(x, y);
        cout << m.calculate() << endl;
    }
    else if (c == '/') {
        Div d;
        d.setValue(x, y);
        cout << d.calculate() << endl;
    }
}
```

결과

```
두 정수와 연산자를 입력하세요>>8 5 -
3
```

```
두 정수와 연산자를 입력하세요>>77 5 /
15
```