```cpp
//
//  Throwing an Exception Inside a Function
//  main.cpp
//  AbsoluteCpp_ch18_5
//

#include <iostream>
#include <cstdlib>
using std::cin;
using std::cout;
using std::endl;

class DivideByZero
{};

double safeDivide(int top, int bottom) throw (DivideByZero);

int main() {

    int numerator;
    int denominator;
    double quotient;
    cout << "Enter numerator:\n";
    cin >> numerator;
    cout << "Enter denominator:\n";
    cin >> denominator;

    try
    {
        quotient = safeDivide(numerator, denominator);
    }
    catch(DivideByZero)
    {
        cout << "Error: Division by Zero!\n"
        << " Program aborting. \n";
        exit(0);
    }

    cout << numerator << "/" << denominator
    << " = " << quotient << endl;
    cout << "End of program.\n";

    return 0;
}

double safeDivide(int top, int bottom) throw (DivideByZero)
{
    if(bottom == 0)
        throw DivideByZero();
    return top / static_cast<double>(bottom);
}
```