class fraction {

private:

    int num, //fraction numerator
denom; //fraction denominator

    int gcd (int u, int v); //This private function computes
    //the greatest common divisor of
    //the integers u and v.

    fraction reduce(fraction f); //This private function puts a
    //fraction into lowest terms.

public:

    //***************************************************************************
    //                          CONSTRUCTORS                                     *
    //***************************************************************************

    fraction(int n, int d); //This constructor creates a fraction with
    //numerator n and denominator d.

    fraction(); //This constructor creates an unitialized
    //fraction, i.e., an empty fraction.

    //***************************************************************************
    //                          MEMBER FUNCTIONS                                *
    //***************************************************************************

    void printFraction(); //This member function prints its receiver
    //in the traditional manner.

    void assign(int n, int d); //This member function sets the numerator
    //of the receiver to n and the
    //and the denominator to d.

    int getNum(); //This member function returns the numerator
    //of the receiver.

    int getDenom(); //This member function returns the denominator
    //of the receiver.

    fraction operator* (fraction f); //This member function multiplies
    //the receiver by the fraction f.

    fraction operator/ (fraction f); //This member function divides
    //the receiver by the fraction f.

    fraction operator+ (fraction f); //This member function adds the
    //receiver to the fraction f.

    fraction operator- (fraction f); //This member function subtracts
    //the fraction f from the receiver.

};