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:

    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.

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

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

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

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

};