**Example 1:**

For this input.txt:

6

F(Joe)

H(John)

~H(Alice)

~H(John)

G(Joe)

G(Tom)

14

~F(x) | G(x)

~G(x) | H(x)

~H(x) | F(x)

~R(x) | H(x)

~A(x) | H(x)

~D(x,y) | ~H(y)

~B(x,y) | ~C(x,y) | A(x)

B(John,Alice)

B(John,Joe)

~D(x,y) | ~Q(y) | C(x,y)

D(John,Alice)

Q(Joe)

D(John,Joe)

R(Tom)

output.txt is:

FALSE

TRUE

TRUE

FALSE

FALSE

TRUE

**Example 2:**

For this input.txt:

2

Ancestor(Liz,Billy)

Ancestor(Liz,Joe)

6

Mother(Liz,Charley)

Father(Charley,Billy)

~Mother(x,y) | Parent(x,y)

~Father(x,y) | Parent(x,y)

~Parent(x,y) | Ancestor(x,y)

~Parent(x,y) | ~Ancestor(y,z) | Ancestor(x,z)

output.txt is:

TRUE

FALSE

**Example 3:**

For this input.txt:

1

Criminal(West)

6

~American(x) | ~Weapon(y) | ~Sells(x,y,z) | ~Enemy(z,America) | Criminal(x)

Owns(Nono,M1)

Missile(M1)

~Missile(x) | ~Owns(Nono,x) | Sells(West,x,Nono)

~Missile(x) | Weapon(x)

Enemy(Nono,America)

output.txt is:

TRUE