```
> restart;
```

Solve equation 1 for B depending on C

```
> e1 := B = (G1-C)*G2*U / (1-(G1-C)*G2*(C*G2));
```

$$e1 := B = \frac{(G1 - C)\, G2\, U}{1 - (G1 - C)\, G2^2\, C} \tag{1}$$

```
> e1 := solve(e1, B);
```

$$e1 := -\frac{(-G1 + C)\, G2\, U}{1 - G2^2\, C\, G1 + G2^2\, C^2} \tag{2}$$

Solve equatin 2 for C

```
> e2 := C = G3*B / (1-G3*(((U-B)*G1 -1)*G2 +Y));
```

$$e2 := C = \frac{G3\, B}{1 - G3\, (((U - B)\, G1 - 1)\, G2 + Y)} \tag{3}$$

```
> e2 := solve(e2, C);
```

$$e2 := \frac{G3\, B}{1 - G3\, G2\, G1\, U + G3\, G2\, G1\, B + G3\, G2 - G3\, Y} \tag{4}$$

```
> e2 := subs(B=e1, e2);
```

$$e2 := -(G3\, (-G1 + C)\, G2\, U) \Big/ \left( \left(1 - G2^2\, C\, G1 + G2^2\, C^2\right) \left( 1 - G3\, G2\, G1\, U - \frac{G3\, G2^2\, G1\, (-G1 + C)\, U}{1 - G2^2\, C\, G1 + G2^2\, C^2} + G3\, G2 - G3\, Y \right) \right) \tag{5}$$

```
> e2 := solve(e2, C);
```

$$e2 := G1 \tag{6}$$

Solve equation 3

```
> e3 := G4*C / (1-G4*((B+1)*G3));
```

$$e3 := \frac{G4\, C}{1 - G4\, (B + 1)\, G3} \tag{7}$$

```
> e3 := subs(B=e1, e3);
```

$$e3 := \frac{G4\, C}{1 - G4 \left( -\frac{(-G1 + C)\, G2\, U}{1 - G2^2\, C\, G1 + G2^2\, C^2} + 1 \right) G3} \tag{8}$$

```
> e3 := subs(C=e2, e3);
```

$$e3 := \frac{G4\, G1}{1 - G4\, G3} \tag{9}$$

most likely the approach is wrong! Result does not match to expectation! FUCK!