```
commandwindow
clear
clc
A=[1 1 -2 1 3 -1;2 -1 1 2 1 -3;1 3 -3 -1 2 1;5 2 -1 -1 2 1;-3 -1 2 3 1
3;4 3 1 -6 -3 -2]
B=[4;20;-15;-3;16;-27]
f1=A(2,1)/A(1,1)
f2=A(3,1)/A(1,1)
f3=A(4,1)/A(1,1)
f4=A(5,1)/A(1,1)
f5=A(6,1)/A(1,1)
C=[1 1 -2 1 3 -1;2-(f1*A(1,1)) -1-(f1*A(1,2)) 1-(f1*A(1,3)) 2-(f1*A(1,4))
1-(f1*A(1,5)) -3-(f1*A(1,6)); 1-(f2*A(1,1)) 3-(f2*A(1,2)) -3-(f2*A(1,3))
-1-(f2*A(1,4)) 2-(f2*A(1,5)) 1-(f2*A(1,6));5-(f3*A(1,1)) 2-(f3*A(1,2)) -
1-(f3*A(1,3)) -1-(f3*A(1,4)) 2-(f3*A(1,5)) 1-(f3*A(1,6));-3-(f4*A(1,1)) -
1-(f4*A(1,2)) 2-(f4*A(1,3)) 3-(f4*A(1,4)) 1-(f4*A(1,5)) 3-(f4*A(1,6));4-
(f5*A(1,1)) 3-(f5*A(1,2)) 1-(f5*A(1,3)) -6-(f5*A(1,4)) -3-(f5*A(1,5)) -2-
(f5*A(1,6))]
b=[B(1,1); B(2,1)-(f1*B(1,1));B(3,1)-(f2*B(1,1));B(4,1)-
(f3*B(1,1));B(5,1)-(f4*B(1,1));B(6,1)-(f5*B(1,1))]
f11=C(3,2)/C(2,2)
f21=C(4,2)/C(2,2)
f31=C(5,2)/C(2,2)
f41=C(6,2)/C(2,2)
D= [C(1,1) C(1,2) C(1,3) C(1,4) C(1,5) C(1,6);C(2,1) C(2,2) C(2,3) C(2,4)
C(2,5) C(2,6);C(3,1) C(3,2)-(f11*C(2,2)) C(3,3)-(f11*C(2,3)) C(3,4)-
(f11*C(2,4)) C(3,5)-(f11*C(2,5)) C(3,6)-(f11*C(2,6));C(4,1) C(4,2)-
(f21*C(2,2)) C(4,3)-(f21*C(2,3)) C(4,4)-(f21*C(2,4)) C(4,5)-(f21*C(2,5))
C(4,6)-(f21*C(2,6));C(5,1) C(5,2)-(f31*C(2,2)) C(5,3)-(f31*C(2,3))
C(5,4)-(f31*C(2,4)) C(5,5)-(f31*C(2,5)) C(5,6)-(f31*C(2,6));C(6,1)
C(6,2)-(f41*C(2,2)) C(6,3)-(f41*C(2,3)) C(6,4)-(f41*C(2,4)) C(6,5)-
(f41*C(2,5)) C(6,6)-(f41*C(2,6))]
c=[b(1,1);b(2,1);b(3,1)-(f11*b(2,1));b(4,1)-(f21*b(2,1));b(5,1)-
(f31*b(2,1));b(6,1)-(f41*b(2,1))]
f12=D(4,3)/D(3,3)
f13=D(5,3)/D(3,3)
f14=D(6,3)/D(3,3)
E= [D(1,1) D(1,2) D(1,3) D(1,4) D(1,5) D(1,6);D(2,1) D(2,2) D(2,3) D(2,4)
D(2,5) D(2,6);D(3,1) D(3,2) D(3,3) D(3,4) D(3,5) D(3,6);D(4,1) D(4,2)
D(4,3)-(f12*D(3,3)) D(4,4)-(f12*D(3,4)) D(4,5)-(f12*D(3,5)) D(4,6)-
(f12*D(3,6));D(5,1) D(5,2) D(5,3)-(f13*D(3,3)) D(5,4)-(f13*D(3,4))
D(5,5)-(f13*D(3,5)) D(5,6)-(f13*D(3,6));D(6,1) D(6,2) D(6,3)-(f14*D(3,3))
D(6,4)-(f14*D(3,4)) D(6,5)-(f14*D(3,5)) D(6,6)-(f14*D(3,6))]
d=[c(1,1);c(2,1);c(3,1);c(4,1)-(f12*c(3,1));c(5,1)-(f13*c(3,1));c(6,1)-
(f14*c(3,1))]
f31=E(5,4)/E(4,4)
f32=E(6,4)/E(4,4)
F= [E(1,1) E(1,2) E(1,3) E(1,4) E(1,5) E(1,6); E(2,1) E(2,2) E(2,3)
E(2,4) E(2,5) E(2,6);E(3,1) E(3,2) E(3,3) E(3,4) E(3,5) E(3,6);E(4,1)
E(4,2) E(4,3) E(4,4) E(4,5) E(4,6);E(5,1) E(5,2) E(5,3) E(5,4)-
(f31*E(4,4)) E(5,5)-(f31*E(4,5)) E(5,6)-(f31*E(4,6));E(6,1) E(6,2) E(6,3)
E(6,4)-(f32*E(4,4)) E(6,5)-(f32*E(4,5)) E(6,6)-(f32*E(4,6))]
e= [d(1,1);d(2,1);d(3,1);d(4,1);d(5,1)-(f31*d(4,1));d(6,1)-(f32*d(4,1))]
f41=F(6,5)/F(5,5)
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```
G= [F(1,1) F(1,2) F(1,3) F(1,4) F(1,5) F(1,6);F(2,1) F(2,2) F(2,3) F(2,4)
F(2,5) F(2,6);F(3,1) F(3,2) F(3,3) F(3,4) F(3,5) F(3,6);F(4,1) F(4,2)
F(4,3) F(4,4) F(4,5) F(4,6);F(5,1) F(5,2) F(5,3) F(5,4) F(5,5)
F(5,6);F(6,1) F(6,2) F(6,3) F(6,4) F(6,5)-(f41*F(5,5))  F(6,6)-
(f41*F(5,6))]
f= [e(1,1);e(2,1);e(3,1);e(4,1);e(5,1);e(6,1)-(f41*e(5,1))]
T6=f(6,1)/G(6,6)
T5=(f(5,1)-(G(5,6)*T6))/G(5,5)
T4=(f(4,1)-((G(4,5)*T5)+(G(4,6)*T6)))/G(4,4)
T3=(f(3,1)-((G(3,4)*T4)+(G(3,5)*T5)+(G(3,6)*T6)))/G(3,3)
T2=(f(2,1)-((G(2,3)*T3)+(G(2,4)*T4)+(G(2,5)*T5)+(G(2,6)*T6)))/G(2,2)
T1=(f(1,1)-
((G(1,2)*T2)+(G(1,3)*T3)+(G(1,4)*T4)+(G(1,5)*T5)+(G(1,6)*T6)))/G(1,1)

ans=[T1;T2;T3;T4;T5;T6]
```