```matlab
%%%% This linsolve was used to solve system of equation to find stationary
%%%% distributions for Question number 4 b).

%%%%% Tit for TAT vs GRIM
%%%%% (1): to find pi_TG
syms x y z w e
eqn1 = (1-2*e+e^2)*x + (e-e^2)*y + (e-e^2)*z +(e^2)*w== x;
eqn2 = (e-e^2)*x +(e^2)*y +(1-2*e+e^2)*z +(e-e^2)*w== y;
eqn3 =(e-e^2)*x + (1-2*e+e^2)*y + (e^2)*z+(e-e^2)*w == z;
eqn4 = (e^2)*x+(e-e^2)*y+(e-e^2)*z+(1-2*e+e^2)*w==w;
eqn5= x+y+z+w==1;
[A,B] = equationsToMatrix([eqn1, eqn2, eqn3,eqn4, eqn5], [x, y, z, w]);
X = linsolve(A,B);


%%% (2): TFT vs TFT tit for TAT vs tit for TAT
%%% to find pi_TT
syms x y z w e
eqn1 = (1-2*e+e^2)*x + (e-e^2)*y + (e-e^2)*z +(e^2)*w== x;
eqn2 = (e-e^2)*x +(e^2)*y +(1-2*e+e^2)*z +(e-e^2)*w== y;
eqn3 =(e-e^2)*x + (1-2*e+e^2)*y + (e^2)*z+(e-e^2)*w == z;
eqn4 = (e^2)*x+(e-e^2)*y+(e-e^2)*z+(1-2*e+e^2)*w==w;
eqn5= x+y+z+w==1;
[A,B] = equationsToMatrix([eqn1, eqn2, eqn3,eqn4, eqn5], [x, y, z, w]);
X = linsolve(A,B);

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%% (3): for M _ T _A ( TFT vs ALLC)
%%% to find pi_TC
syms x y z w e
eqn1 = (1-2*e+e^2)*x + (e-e^2)*y + (1-2*e+e^2)*z +(e-e^2)*w== x;
eqn2 = (e-e^2)*x +(e^2)*y +(e-e^2)*z +(e^2)*w== y;
eqn3 =(e-e^2)*x + (1-2*e+e^2)*y + (e-e^2)*z+(1-2*e+e^2)*w == z;
eqn4 = (e^2)*x+(e-e^2)*y+(e^2)*z+(e-e^2)*w==w;
eqn5= x+y+z+w==1;
[A,B] = equationsToMatrix([eqn1, eqn2, eqn3,eqn4, eqn5], [x, y, z, w]);
X = linsolve(A,B);

% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%% (4):  for M GRIM vs GRIM
%%% to find pi_GG
syms x y z w e
eqn1 = (1-2*e+e^2)*x + (e^2)*y + (e^2)*z +(e^2)*w== x;
eqn2 = (e-e^2)*x +(e-e^2)*y +(e-e^2)*z +(e-e^2)*w== y;
eqn3 =(e-e^2)*x + (e-e^2)*y + (e-e^2)*z+(e-e^2)*w == z;
eqn4 = (e^2)*x+(1-2*e+e^2)*y+(1-2*e+e^2)*z+(1-2*e+e^2)*w==w;
eqn5= x+y+z+w==1;
[A,B] = equationsToMatrix([eqn1, eqn2, eqn3,eqn4, eqn5], [x, y, z, w]);
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```matlab
X = linsolve(A,B);


%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%% (5): for M GRIM vs ALLC
%%% to find pi_GC
syms x y z w e
eqn1 = (1-2*e+e^2)*x + (e-e^2)*y + (e-e^2)*z +(e-e^2)*w== x;
eqn2 = (e-e^2)*x +(e^2)*y +(e^2)*z +(e^2)*w== y;
eqn3 =(e-e^2)*x + (1-2*e+e^2)*y + (1-2*e+e^2)*z+(1-2*e+e^2)*w == z;
eqn4 = (e^2)*x+(e-e^2)*y+(e-e^2)*z+(e-e^2)*w==w;
eqn5= x+y+z+w==1;
[A,B] = equationsToMatrix([eqn1, eqn2, eqn3,eqn4, eqn5], [x, y, z, w]);
X = linsolve(A,B);


%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%%% (6): For ALLC vs ALLC
%%% to find pi_CC
syms x y z w e
eqn1 = (1-2*e+e^2)*x + (1-2*e+e^2)*y + (1-2*e+e^2)*z +(1-2*e+e^2)*w== x;
eqn2 = (e-e^2)*x +(e-e^2)*y +(e-e^2)*z +(e-e^2)*w== y;
eqn3 =(e-e^2)*x + (e-e^2)*y + (e-e^2)*z+(e-e^2)*w == z;
eqn4 = (e^2)*x+(e^2)*y+(e^2)*z+(e^2)*w==w;
eqn5= x+y+z+w==1;
[A,B] = equationsToMatrix([eqn1, eqn2, eqn3,eqn4, eqn5], [x, y, z, w]);
X = linsolve(A,B);
```