```
% Josh Oates
% HW 6
clear all
J = [...
    [2 -1 0];...
    [-1 3 0];...
    [0 0 1]];

[E,Lam] = eig(J);

disp("Problem 5")
disp("The principle moments of intertia are:")
disp(Lam)
disp("Problem 6")
disp("The components of basis vectors for the principle axes in the refrence
 fram Fc are:")
disp("X:")
disp(E(:,1))
disp("Y:")
disp(E(:,2))
disp("Z:")
disp(E(:,3))
```

Problem 5
The principle moments of intertia are:
*   1.0000   0   0*
*   0   1.3820   0*
*   0   0   3.6180*

Problem 6
The components of basis vectors for the principle axes in the refrence fram Fc
* are:*
X:
*   0*
*   0*
*   1*

Y:
*   -0.8507*
*   -0.5257*
*   0*

Z:
*   -0.5257*
*   0.8507*
*   0*

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