```
The water temperature will remain constant at T=30.0

The Jacobian for the critical point (0,0) is:
J_1 =

   -1967/1052         0
       0           -43/2667

The eigenvalues of the Jacobian above are:
   -1967/1052
     -43/2667

The Jacobian for the critical point (0,6) is:
J_2 =

   -1576/747          0
       3/6250        43/2667

The eigenvalues of the Jacobian above are:
      43/2667
   -1576/747

The Jacobian for the critical point (15,0) is:
J_3 =

    1967/1052        -3/5
       0           -94/6299

The eigenvalues of the Jacobian above are:
    1967/1052
     -94/6299

The Jacobian for the critical point (16.765204,5.500881) is:
J_4 =

     861/412       -397/592
      11/24996       63/4262

The eigenvalues of the Jacobian above are:
    1375/658
     164/10989

>>
```