```
import numpy as np
import matplotlib.pyplot as plt
from scipy.optimize import fsolve

r1=0.3
r2=1.1
h=0.1
E=200*10**9
m=0.3
σ=240*10**6

D=(E*h**3)/(12*(1-m**2))
print("Цилиндрическая жесткость пластины:", D)

def w(r, C, D):
    return (C[0] + C[1]*r**2 + C[2]*np.log(r) + C[3]*np.log(r)*r**2)

def w1(r, C, D):
    return (C[1]*2*r + (C[2]/r) + C[3]*r + C[3]*2*r*np.log(r))

def w2(r, C, D):
    return (C[1]*2 + (-C[2]/r**2) + C[3]*3 + C[3]*np.log(r)*2 )

def w3(r, C, D):
    return (((C[2]*2)/r**3) + ((C[3]*2)/r) )

def w4(r, C, D):
    return (D * (w3(r, C, D) + (1/r)*w2(r, C, D))+(1/(2*np.pi*r)))

def equations_to_solve(coefficients, r1, r2, D):
    C = coefficients
```