```python
# -*- coding: utf-8 -*-
"""
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"""

import numpy as np
import matplotlib.pyplot as plt

a=[6,1,-1]
b=[1,0,0]

poles=np.roots(b)
zeros=np.roots(a)
plt.figure()

plt.scatter(np.real(zeros), np.imag(zeros), color='red', marker='o', label='zeros')
plt.scatter(np.real(poles), np.imag(poles), color='blue', marker='x', label='poles')

unit_circle=plt.Circle((0,0),1,color='black',fill=False,linestyle='--',linewidth=1)
plt.gca().add_artist(unit_circle)

plt.axvline(0,color='black',linewidth=0.5)
plt.axvline(0,color='black',linewidth=0.5)

plt.xlim(-2,2)
plt.ylim(-2,2)
plt.xlabel('Real axis')
plt.ylabel('Imaginary axis')
plt.title('Pole-Zero diagram with Unit Circle')
plt.grid(True)
plt.legend()
plt.gca().set_aspect('equal',adjustable='box')
plt.show()
inside_unit_circle=np.all(np.all(zeros)<1)
outside_unit_circle=np.all(np.all(zeros)>1)
if inside_unit_circle:
    phase_type= "Minimum Phase System"
elif outside_unit_circle:
    phase_type= "Maximum Phase System"
else:
    phase_type= "Mixed Phase System"
    print("The system is a", phase_type)
```