

```
1. from scipy.signal import tf2zpk
2. import numpy as np
3. import matplotlib.pyplot as plt
4.
5. x = np.linspace(0, 2*np.pi, 100)
6. #  $x(n) = y(n) - 3y(n-1) + 2y(n-2)$ 
7. a = [1, -3, 2]
8. b = [1, 0, 0]
9. z, p, k = tf2zpk(b, a)
10. plt.plot(p.real, p.imag, 'x')
11. plt.plot(z.real, z.imag, 'o', markerfacecolor='None')
12. plt.plot(np.cos(x), np.sin(x))
13. plt.ylim(-3, 3)
14. plt.xlim(-3, 3)
15. plt.grid()
16. plt.show()
```

