Exercise:

Find a state space realization of the second order transfer function defined below:

- $$G(s) = \frac{9}{s^2 + 6s + 19}$$
- Hint: use '`tf2ss`'

Exercise:

z For the new system (in state space form), say sysSS, check if

- The eigenvalues of the matrix A and the poles of the transfer function `G(s)` are the same
- Use the A, B, C, D matrices of the system sysSS to obtain the transfer function