

Example

Check stability of

$$p(s) = s^4 + 4s^3 + s^2 + 2s + 3$$

All coefficients strictly positive: necessary condition checks out.

$$\begin{array}{l} s^4 : \quad 1 \quad 1 \quad 3 \\ s^3 : \quad 4 \quad 2 \quad 0 \\ s^2 : \quad 1/2 \quad 3 \\ s^1 : \quad -22 \quad 0 \\ s^0 : \quad 3 \end{array}$$

Answer: p is unstable — it has 2 RHP poles (2 sign changes in 1st column)