Nise 7.1

$s^5 + 3s^4 + 5s^3 + 4s^2 + s + 3$

how many roots have real part >0

		1	2	3	4
+	s^5	1	5	1	0
+	s^4	3	4	3	0
+	s^3	~~11/3~~	0	0	0
+	s^2	4	3	0	
−	s^1	~~-3~~ -10			
+	s^0	3			

$-\frac{1}{3}\begin{vmatrix} 1 & 5 \\ 3 & 4 \end{vmatrix} = -\frac{1}{3}(4-15)$

$= \frac{11}{3}$

$-\frac{1}{3}\begin{vmatrix} 1 & 1 \\ 3 & 3 \end{vmatrix} = \frac{-1}{3}(3-3) = 0$

$-\frac{1}{3}\begin{vmatrix} 1 & 0 \\ 3 & 0 \end{vmatrix} = 0$

$-\frac{1}{1}\begin{vmatrix} 3 & 4 \\ 1 & 0 \end{vmatrix} = -(-4) = 4$

$-\frac{1}{1}\begin{vmatrix} 3 & 3 \\ 1 & 0 \end{vmatrix} = -(-3) = 3$

$-\frac{1}{4}\begin{vmatrix} 1 & 0 \\ 4 & 3 \end{vmatrix} = -\frac{3}{4}$

$-\frac{1}{4}\begin{vmatrix} 1 & 0 \\ 4 & 0 \end{vmatrix} = 0$

$\frac{-1}{-1}\begin{vmatrix} 4 & 3 \\ -1 & 0 \end{vmatrix} = 3$

2 sign changes

2 unstable roots

-1.6

$-0.9 \pm 1.5j$

$0.25 \pm 0.7j$