$$\dfrac{\dfrac{1}{(s^2+3s+8)(s-2)}}{1 + \dfrac{1}{(s^2+3s+8)(s-2)} \cdot \alpha}$$

$$\dfrac{1}{(s^2+3s+8)(s-2)} \qquad \dfrac{\dfrac{1}{(s^2+3s+8)(s-2)}}{1+\dfrac{\alpha}{(s^2+3s+8)(s-2)}}$$

$$\dfrac{1}{(s^2+3s+8)(s-2) + \alpha}$$

·

$$s^3 - 2s^2 + 3s^2 - 6s + 8s - 16 + \alpha$$
$$s^3 + s^2 + 2s - 16 + \alpha$$

$$(\alpha-16) \; - \quad 2$$

3	1	2	0
2	1	$\alpha-16$	0
1	b_{n-1}		
0	$\alpha-16$		

$$b_{n-1} = -1 \begin{vmatrix} 1 & 2 \\ 1 & \alpha-16 \end{vmatrix}$$

$$\therefore \quad \alpha > 16$$

$$= -1 \cdot (\alpha - 18)$$

$$= -\alpha + 18$$

Para ser positivo

$$\alpha < 18$$