(f) $y_{degrau}[n] = C_p + C_1 r_1^n + C_2 r_2^n$

$y[-1]=0$; $y[-2]=0$ ⇝ Onde, para os cálculos ~~[illegible]~~ $n > 0^+$
$x[n] = u[n]$

i) $y[0] = 0.5y[-1] - \frac{2}{7}y[-2] + 5u[-1] - 3u[0^+] = -3$

$y[1] = 0.5y[0] - \frac{2}{7}y[-1] + 5u[0^+] - 3u[1] = 0.5$

$y[2] = 0.5y[1] - \frac{2}{7}y[0] + 5u[1] - 3u[2] = 3{,}107$

$$\begin{cases} C1 + C2 + CP = -3 \\ C1 r_1^{(n)=1} + C2 r_1^1 + C_p = 0.5 \\ C_1 r_2^2 + C_2 r_2^2 + C_P = 3.107 \end{cases}$$

$$\rightarrow \begin{cases} C1 + C2 + C_P = -3 \\ C1(0.25 + j0.472) + C2(0.25 - j0{,}472) + CP = 0.5 \\ C1(-0{,}160 + j0{,}236) + C2(-0{,}160 - j0{,}236) + CP = 3.107 \end{cases}$$

$y[n] - 0.5y[n-1] + \frac{2}{7}y[n-2] = 5x[n-1] - 3x[n]$

$C_P - 0.5C_P + \frac{2}{7}C_P = 5 - 3$

$0.785\,C_P = 2$

$\boxed{C_P = 2{,}545}$

linsolve([1 1 1 ; 0.25+j0,472 0.25-j0,472 1; -0.160+j0.236 -0.160-j0.236 1]
[-3; 0.5; 3,107])

$C1 = -2{,}775 + j0.702 = 2.862e^{j2{,}893}$

$C2 = -2{,}775 - j0{,}702 = 2.862e^{-j2{,}893}$

$CP = 2{,}545$

$y_{degrau}[m] = C_p + C_1 r_1^m + C_2 r_2^m = s[m]$

$s[m] = 2{,}545 + 2{,}862\,(0{,}534^m \cdot e^{j\,1{,}083^m} \cdot e^{j\,2{,}893} + 0{,}534^m \cdot e^{-j\,1{,}083m} \cdot e^{-j}$

$= 2{,}545 + 2{,}862 \cdot 0{,}534^m \underbrace{\left(e^{j(2{,}893 + 1{,}083m)} + e^{-j(2{,}893 + 1{,}083m)}\right)}_{\text{cosseno}}$

$s[m] = 5{,}724 \cdot 0{,}534^m \cdot \cos(1{,}083m + 2{,}893) + 2{,}545$

(ii) $s[m] - s[m-11] = y_F[m]$

$5{,}724 \cdot 0{,}534^m \cdot \cos(1{,}083m + 2{,}893) - \left(5{,}724 \cdot 0{,}534^{(m-11)} \cdot \cos(1{,}083(m-11) + 2{,}893)\right)$
$= y_F[m]$