Tarea #7 corregir un 10% el error ante un escalón

$$\frac{1}{(s+2)(s+3)} = G(s)$$

$$\lim_{s\to 0} = \frac{1}{(s+2)(s+3)} = \frac{1}{2\cdot 3} = \frac{1}{6} = 0.166$$

$$f_{ss}\downarrow = \frac{1}{1+k_p} = \frac{1}{1+\frac{1}{6}} = \frac{6}{7} = 0,86$$

Corregir un 10% $\Rightarrow$ 0,76.

$$k_{nuevo} = \frac{z}{p} \cdot k_p \qquad error = 0,9 \times 0,86 = 0,774$$

$$k_{nuevo} = \frac{1}{0,774} - 1 = 0,29$$

$$0,29 = \frac{k}{p} \cdot 0,166 \Rightarrow \frac{0,29}{0,166} = \frac{z}{p} = 1,81$$

$$p = -1$$

$$z = -1,81$$

$$\left[\frac{s+1,81}{s+1}\right]\left[\frac{1}{(s+2)(s+3)}\right]$$

$$G(0) = 0,231 \qquad error\downarrow = \frac{1-0,231}{1-0,181} = 0,895 \;//$$

$$G(\infty) = 0,181$$