

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

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

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

$$f_{ss} \sqrt{1 + \frac{1}{K_p}} = \frac{1}{1 + \frac{1}{6}} = \frac{6}{7} = 0.86$$

Corregir un 10% $\Rightarrow 0.76$

$$K_{nueva} = \frac{Z}{P} \cdot K_p \quad error = 0.9 \times 0.86 = 0.774$$

$$K_{nueva} = \frac{1}{0.774} - 1 = 0.29$$

$$0.29 = \frac{h \cdot 0.166}{P} \Rightarrow \frac{0.29}{0.166} = \frac{Z}{P} = 1.81$$

$$P = -1$$

$$Z = -1.81$$

$$\left[\frac{s+1.81}{s+1} \right] \left[\frac{1}{(s+2)(s+3)} \right]$$

$$G(0) = 0.231$$

$$G(-1) = 0.141$$

$$error \sqrt{1 - 0.231} = \frac{1 - 0.231}{1 - 0.141} = 0.895 //$$