

for $g_3, \times (2+2) | \text{in result}$ EE610
P.6
10/18/00
 $2 = -2,$

$$\left. \frac{3s+5}{(s+2)(s+2)^*} \right|_{s=-2} = \frac{g_2 (s+2)}{s+2} \Big|_{s=-2} = 0$$

$$+ g_3 + \left. \frac{g_3^* (s+2)}{(s+2)^*} \right|_{s=-2} = 0$$

$$g_3 = \frac{5+3s}{(2+s)(2 \operatorname{Re} s)} \Big|_{s=-2+j\sqrt{2}}$$

$$g_3^* = \frac{5+3s^*}{(2+s^*)(2 \operatorname{Re} s)}$$

an alternate using only
 real numbers. For $T(s) = \frac{N(s)}{D(s)}$

$T(s), D(s) = N(s)$
 equate powers of s ; gives
 linear equations in the
 unknown coefficients