$y'' + 4y = 3x \cos x$

$y = e^{rx} \Rightarrow r^2 + 4 = 0$

$r_1 = \alpha + i\beta = 0 + 2i$

$r_2 = \alpha - i\beta = 0 - 2i$

$\therefore \alpha = 0 \text{ e } \beta = 2$

Sua complementar é dada por:

$y_c = e^{\alpha x}(c_1 \cos \beta x + c_2 \operatorname{sen} \beta x)$

$y_c = c_1 \cos 2x + c_2 \operatorname{sen} 2x$