(7) Se $f_1(n) = O(g_1(n))$ allora

$\exists e_1, n_0' : f_1(n) \leq e_1 g_1(n) \quad \forall n > n_0'$

Se $f_2(n) = O(g_2(n))$ allora

$\exists e_2, n_0'' : f_2(n) \leq e_2 g_2(n) \quad \forall n > n_0''$

Se $f_1(n) + f_2(n) = O(g_1(n) + g_2(n))$ allora

$\exists e_3, n_0''' : f_1(n) + f_2(n) = e_3(g_1(n) + g_2(n)) \quad \forall n > n_0'''$

$n_0''' = \max(n_0', n_0'')$

$e_3 = e_1 + e_2$

DA RIVEDERE SULL'ALTRO QUADERNO

$f_1(n) = \Omega(g_1(n_1)) \qquad f_2(n) = \Omega(g_2(n_2))$

$f_1(n) + f_2(n) \geq e_3 [g_1(n) + g_2(n)]$

$f_1(n) + f_2(n) \geq e_1 g_1(n) + e_2 g_2(n) - (e_2 - e_1) g_2(n)$

$f_1(n) + f_2(n) \geq e_1 g_1(n) + g_2(n)(e_2 - e_2 + e_1)$

$f_1(n) + f_2(n) \geq e_1 g_1(n) + g_2(n) e_1$

$f_1(n) + f_2(n) \geq e_1 (g_1(n) + g_2(n)) \quad \Rightarrow e_3 = e_1$