	$n \log n$	m^3/T_3^2
$z < 1/2$	$T_3 = \omega(C^2/(n^{2z} \log n))$	$T_3 = o(Cn^{2-z})$
$1/2 < z < 1$	$T_3 = \omega(C^2/(n \log n))$	$T_3 = o(Cn^{3-3z})$
$z > 1$	$T_3 = \omega(C^2/(n \log n))$	$T_3 = o(C)$