

	Method of Superposition			
K (1/hours)	0.1			
Cl (L/hr)	4			
Vd (L)	40			
T'(hours)	2			
Tau(hours)	8			
Dose(mg)	1000			
1-exp(-KT')	0.181269247			
1-exp(-Ktau)	0.550671036			
Time (hours)	0	8	16	24
	Time of Dose1	Time of Dose2	Time of Dose3	Time of Level
Cp1 from Dose1 at hour 24 = $S \cdot F \cdot \text{Dose} \cdot (1 - \exp(-KT')) \cdot \exp(\text{Timeoflevel} - T') / (VdKT')$	2.510650634			
Cp2 from Dose2 at hour 24 = $S \cdot F \cdot \text{Dose} \cdot (1 - \exp(-KT')) \cdot \exp(\text{Timeoflevel} - T') / (VdKT')$	5.587555743			
Cp3 from Dose3 at hour 24 = $S \cdot F \cdot \text{Dose} \cdot (1 - \exp(-KT')) \cdot \exp(\text{Timeoflevel} - T') / (VdKT')$	12.435334			
Sum of Cp1, Cp2, and Cp3 from Doses1-3	20.53354037			
Calculation below are for comparison only				
Cpmax= $S \cdot F \cdot D \cdot (1 - \exp(-KT')) / (VdKT')$	22.65865587			
Cpmaxss= $S \cdot F \cdot D \cdot (1 - \exp(-KT')) / (VdKT' \cdot (1 - \exp(-Ktau)))$	41.14735366			
Cpminss= $CpmaxSS \cdot \exp(-K(\text{Tau} - T'))$	22.58214648			