

Formulas para el Diseño Completamente Aleatorizado

Fuente de Variación	<u>g.l.</u>	SS	CM	<u>Fc</u>
Tratamientos	k-1	$SCTr$	$CMTr = \frac{SSTR}{k-1}$	$F_c = \frac{CMTr}{CME}$
Error	N-k	SCE	$CME = \frac{SSE}{N-k}$	
Total	N-1	STC		

Donde

$$STC = \sum_{i=1}^k \sum_{j=1}^{n_i} (y_{ij} - \bar{y}_{i.})^2 = \sum_{i=1}^k \sum_{j=1}^{n_i} y_{ij}^2 - \frac{y_{i.}^2}{N}$$

$$SCTr = \sum_{i=1}^k n_i (\bar{y}_{i.} - \bar{y}_{..})^2 = \sum_{i=1}^k \frac{y_{i.}^2}{n_i} - \frac{y_{..}^2}{N}$$

$$SCE = STC - SCTr$$

Formulas para el Diseño en Bloques Completamente Aleatorizado

Fuente de Variación	<u>g.l.</u>	SS	CM	<u>Fc</u>
Tratamientos	k-1	$SCTr$	$CMTr = \frac{SSTR}{k-1}$	$F_c = \frac{CMTr}{CME}$
Bloques	b-1	SCB	$CMB = \frac{SSB}{b-1}$	$F_c^* = \frac{CMB}{CME}$
Error	(k-1)(b-1)	SCE	$CME = \frac{SSE}{(k-1)(b-1)}$	
Total	N-1	STC		

Donde

$$STC = \sum_{i=1}^k \sum_{j=1}^{n_i} y_{ij}^2 - \frac{y_{..}^2}{N}$$

$$SCTr = \sum_{i=1}^k \frac{y_{i.}^2}{b} - \frac{y_{..}^2}{N}$$

$$SCB = \sum_{j=1}^b \frac{y_{.j}^2}{k} - \frac{y_{..}^2}{N}$$

$$SCE = STC - SCTr - SCB$$

$$LSD = t_{\alpha/2} * \sqrt{\frac{2 * CME}{b}} \quad \text{con } v = \text{grados de libertad del error}$$