σ2

≠

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sources of Variation | Degrees of Freedom | Sums of Squares | Mean Sums of Squares | F |
| Treatments | v-1 |  |  |  |
| Blocks | b-1 |  |  |  |
| Error | (v-1)(b-1) |  |  |  |
| Total | N-1 |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Blocks | | |  |  |
| Treatments | **1** | **2** | **b** | **Treatment Totals** | **Treatment Means** |
| 1 | Y11 | Y12 | Yib |  |  |
| 2 | Y21 | Y22 | Y2b |  | . |
| v | Yv1 | YV2 | Yvb |  | . |
| Block Total |  |  |  |  |  |
| Block Means |  |  |  |  |  |

YIJ=µ+ αI+βJ+εIJ

Where:

µ is the overall mean

αI is the effect if the ith treatment

βJ is the effect of the jth block

εIJ  is the random error which follows a noemal distributipon (0,σ2)