

The following data were obtained from a repeated-measures study comparing three treatment conditions:

Person	Tmt 1	Tmt 2	Tmt 3
A	0	4	5
B	1	5	6
C	3	3	3
D	0	1	5
E	1	2	6

- Write the full model for the data, specifying point estimates for the grand mean  $\mu$ , treatment effects  $\alpha_j$ , and subject effects  $\pi_i$ .

- Test the constrained model  $\mathcal{H}_0 : \alpha_j = 0$  against the full model in part (a). Report both a  $p$ -value and a Bayes factor.