

Subject ▶

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EX 9.1.

$$T_1 = 120 + 180 = 300, \quad T_2 = 140 + 120 + 130 = 390$$

$$T_3 = 190 + 170 + 210 = 570, \quad T_4 = 240 + 300 = 540$$

$$T = 300 + 390 + 570 + 540 = \sum_{i=1}^4 \sum_{j=1}^4 y_{ij} = 1800$$

$$\sum_{i=1}^4 \sum_{j=1}^4 y_{ij}^2 = 120^2 + 180^2 + 140^2 + \dots + 240^2 + 300^2 = 354400$$

$$SST = 354400 - \frac{(1800)^2}{10} = 30400$$

$$SSR = \frac{(300)^2}{2} + \frac{(390)^2}{3} + \frac{(570)^2}{3} + \frac{(540)^2}{2} - \frac{(1800)^2}{10}$$

$$= 25800$$

$$SSE = SST - SSR = 30400 - 25800 = 4600$$