$$
\begin{aligned}
& \hat{\gamma}_{g}=\bar{y}_{g .}-\bar{y} \\
& \hat{\delta}_{h}=\bar{y}_{. h}-\bar{y}
\end{aligned}
$$

(a) Show that the model sum of squares can be written as

$$
H K \sum_{g=1}^{G} \hat{\gamma}_{g}^{2}+G K \sum_{h=1}^{H} \hat{\delta}_{h}^{2}
$$

