$l_1 \cdot \mu^{(j)} + l_2 \cdot \alpha_1^{(j)} + l_3 \cdot \alpha_2 + l_4 \alpha_3$

(1) : $\alpha_1^{(j)} - \alpha_2^{(j)}$

$\Rightarrow 0 \cdot \mu^{(j)} + 1 \cdot \alpha_1^{(j)} + (-1) \cdot \alpha_2^{(j)} + 0 \cdot \alpha_3^{(j)}$

$$\underbrace{\begin{bmatrix} 0 & 1 & -1 & 0 \end{bmatrix}}_{q^t} \cdot \underbrace{\begin{bmatrix} \mu^{(j)} \\ \alpha_1^{(j)} \\ \alpha_2^{(j)} \\ \alpha_3^{(j)} \end{bmatrix}}_{b^{(j)}}$$

---

(2) : $\mu^{(j)} + \alpha_1^{(j)}$: $\underbrace{\begin{bmatrix} 1 & 1 & 0 & 0 \end{bmatrix}}_{q^t} \cdot b^{(j)}$

(3) : $\mu^{(j)} + \frac{1}{2}(\alpha_2^{(j)} + \alpha_3^{(j)})$: $\underbrace{\begin{bmatrix} 1 & 0 & \frac{1}{2} & \frac{1}{2} \end{bmatrix}}_{q^t}$

General :

Linear Function $q^t b$ is estimable, if

$\underbrace{q^t \cdot b^{(j)} = t^T E(y) = t^T X b^{(j)}}$ where $b^{(j)}$