

$\mathbb{R}, \mathbb{Z}$ .

$$\text{Let } M = \begin{pmatrix} a & b \\ c & d \end{pmatrix}$$

$$EM = \begin{pmatrix} s_1 & 0 \\ 0 & s_2 \end{pmatrix} \begin{pmatrix} a & b \\ c & d \end{pmatrix}$$

$$= \begin{pmatrix} s_1 a & s_1 b \\ s_2 c & s_2 d \end{pmatrix}$$