[rdm-0010]

situations 2D.

a) $\sigma_{xx} = \sigma_{xy} = \sigma_{yx} = 0$

$\sigma_{yy} = \frac{-F}{ea}$

$$\Sigma = \begin{pmatrix} 0 & 0 \\ 0 & \frac{-F}{ea} \end{pmatrix}$$

b) $\sigma_{xx} = \frac{fa}{ea} = \frac{f}{e}$

$\sigma_{yy} = \frac{-F}{ea}$

$\sigma_{xy} = \sigma_{yx} = 0$

$$\Sigma = \begin{pmatrix} \frac{f}{e} & 0 \\ 0 & \frac{-F}{ea} \end{pmatrix}$$

c) $\sigma_{xx} = \sigma_{yy} = 0$

$\sigma_{xy} = \frac{q \cdot ea}{ea} = q$

$\sigma_{yx} = \frac{q \cdot ea}{ea} = q$

$$\Sigma = \begin{pmatrix} 0 & q \\ q & 0 \end{pmatrix}$$

d) $\sigma_{xx} = 0$

$\sigma_{yy} = -\frac{F}{ea}$

$\sigma_{xy} = \frac{q \cdot ea}{ea} = q$

$\sigma_{yx} = q$

$$\Sigma = \begin{pmatrix} 0 & q \\ q & \frac{-F}{ea} \end{pmatrix}$$