**ASSIGNMENT 5**
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**ASSIGNMENT 5.2**

I made a mistake.
I understood that the pressure was applied on 3 faces.
**But it is applied only on one.**

It is applied in face 1-2-3

So director cosines in each of the three nodes are (see figure on page 10 alredy sent) :

node 1:
$\alpha = 0$
$\beta = 0$
$\gamma = \pi/2$

node 2:
$\alpha = 0$
$\beta = 0$
$\gamma = \pi/2$

node 3:
$\alpha = \pi/2$
$\beta = 0$
$\gamma = \pi/2$

And:

$$f^e = \begin{pmatrix} f_x \\ f_y \\ f_z \end{pmatrix} = \frac{x_2 y_3 z_4}{6} N^T pA \begin{pmatrix} Cos\ 0 \\ Cos\ 0 \\ Cos\ 90 \\ Cos\ 0 \\ Cos\ 0 \\ Cos\ 90 \\ Cos\ 90 \\ Cos\ 0 \\ Cos\ 90 \end{pmatrix} = \frac{(x_2 y_3)^2 z_4}{12} pA \begin{pmatrix} psi_1 + psi_2 \\ psi_1 + psi_2 + psi_3 \\ 0 \end{pmatrix}$$

$A = \frac{x_2 y_3}{2}$

Values of psi are on page 8.