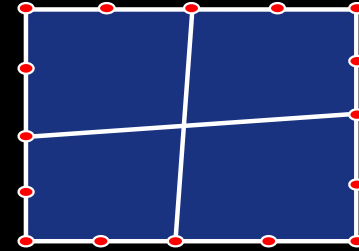
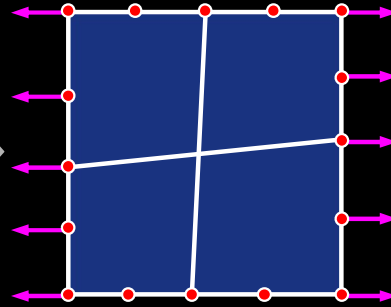
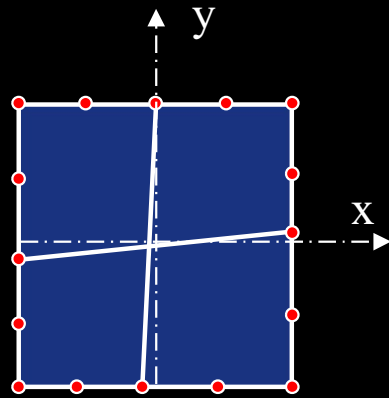


TEST DE LA PARCELA: DEFORMACION CONSTANTE



Desp.

$$u = 1$$

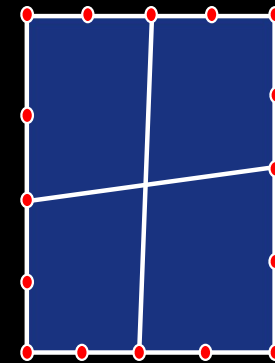
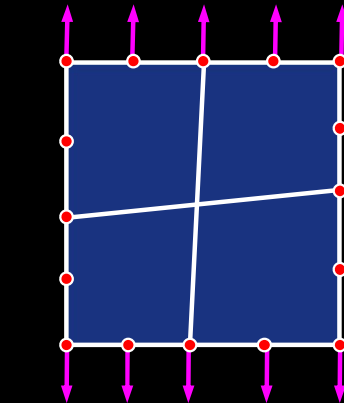
$$v = 0$$

Tensiones

$$\sigma_x = \frac{E}{1-\nu^2} (\varepsilon_x + \nu\varepsilon_y)$$

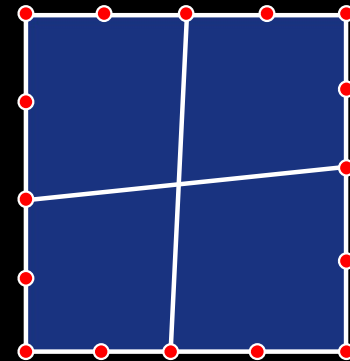
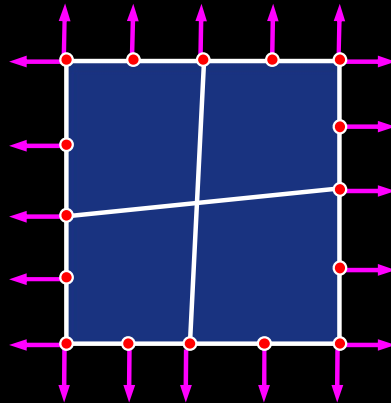
$$\sigma_y = \frac{E}{1-\nu^2} (\varepsilon_y + \nu\varepsilon_x)$$

$$\varepsilon_x = \frac{2\Delta x}{L_x} \quad ; \quad \varepsilon_y = \frac{2\Delta y}{L_y}$$



$$u = 0$$

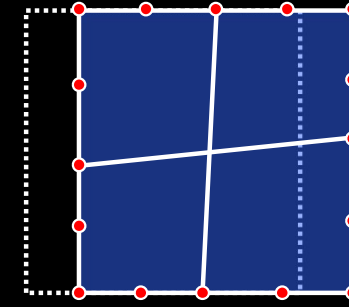
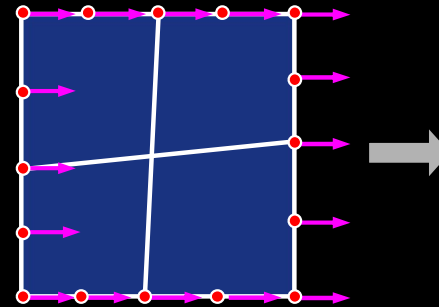
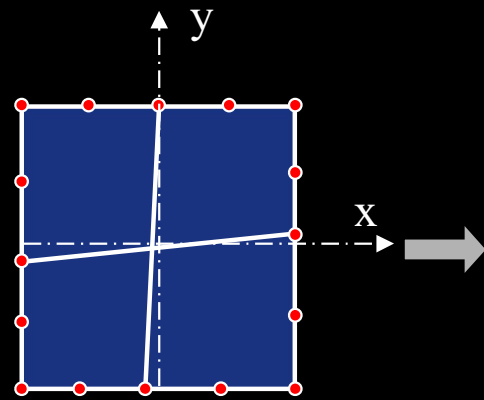
$$v = 1$$



$$u = 1$$

$$v = 1$$

TEST DE LA PARCELA: DEFORMACION NULA (Mov. de Cuerpo Rígido)



Desp.

$$u = 1$$

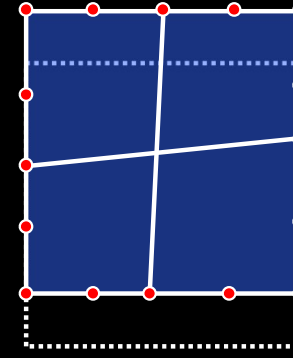
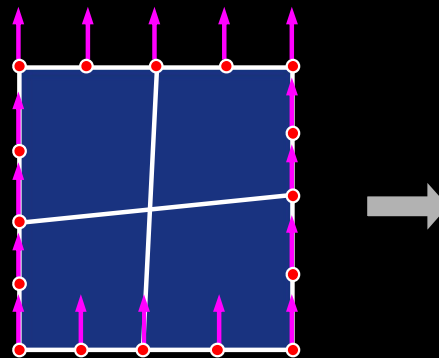
$$v = 0$$

Tensiones

$$\sigma_x = \frac{E}{1-\nu^2} (\varepsilon_x + \nu\varepsilon_y)$$

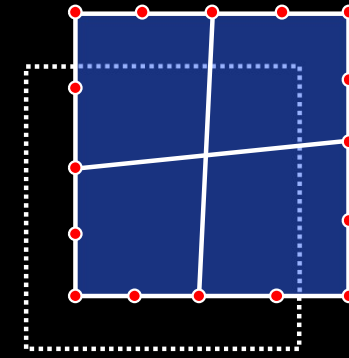
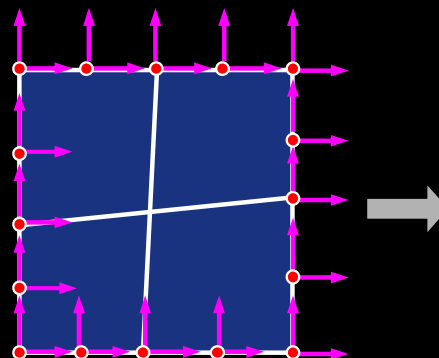
$$\sigma_y = \frac{E}{1-\nu^2} (\varepsilon_y + \nu\varepsilon_x)$$

$$\varepsilon_x = 0 \quad ; \quad \varepsilon_y = 0$$



$$u = 0$$

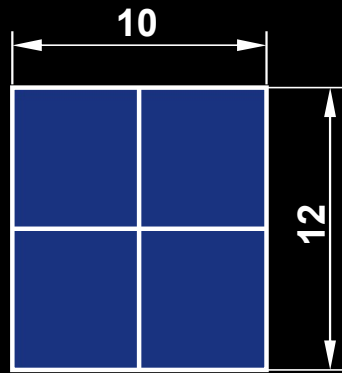
$$v = 1$$



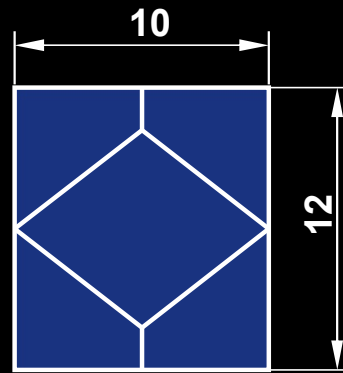
$$u = 1$$

$$v = 1$$

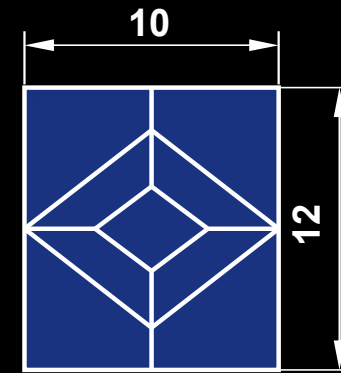
TEST DE LA PARCELA: Mallas utilizadas



Malla 1



Malla 2



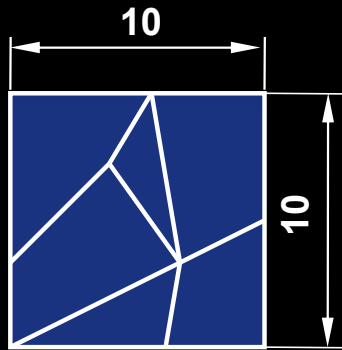
Malla 3

Datos: $E = 2.0e6$; $\nu = 0.25$; $esp. = 0.20$

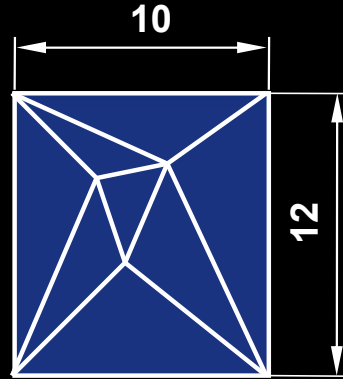
RESULTADOS – DEFORMACION CTE. Y NULA

TEST	Malla	σ_x esp.	σ_x obt.	Error %	σ_y esp.	σ_y obt.	Error %
Def. cte. en x	1, 2 y 3	400000	400000	0.0	0.0	0.0	0.0
Def. cte. en y	1, 2 y 3	0.0	0.0	0.0	333333	333333	0.0
Def. cte. ambas dir.	1, 2 y 3	515556	515556	0.0	462222	462222	-----
Def. nula en x	1, 2 y 3	0.0	0.0	0.0	0.0	0.0	0.0
Def. nula en y	1, 2 y 3	0.0	0.0	0.0	0.0	0.0	0.0
Def. nula ambas dir.	1, 2 y 3	0.0	0.0	0.0	0.0	0.0	0.0

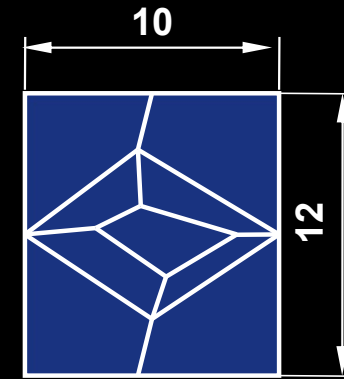
TEST DE LA PARCELA: Mallas utilizadas



Malla 4



Malla 5



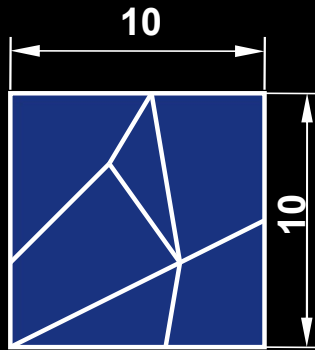
Malla 6

Datos: $E = 2.0e6$; $\nu = 0.25$; $esp. = 0.20$

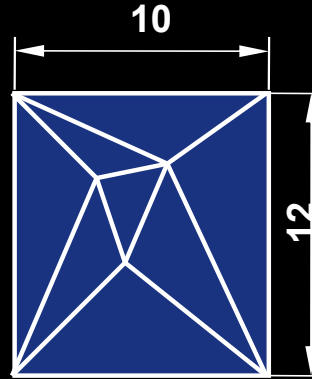
RESULTADOS – DEFORMACION CONSTANTE

TEST	Malla	σ_x esp.	σ_x obt.	Error %	σ_y esp.	σ_y obt.	Error%
Def. cte. en x	4	400000	400000	0.0	0.0	0.0115	----
Def. cte. en y		0.0	0.00597	----	400000	400000	0.0
Def. cte. ambas dir.		533333	533333	0.0	533333	533333	0.0
Def. cte. en x	5	400000	400000	0.0	0.0	0.000158	----
Def. cte. en y		0.0	0.00597	----	400000	400000	0.0
Def. cte. ambas dir.		533333	533333	0.0	533333	533333	0.0
Def. cte. en x	6	400000	400000	0.0	0.0	0.00118	----
Def. cte. en y		0.0	0.000343	----	400000	400000	0.0
Def. cte. ambas dir.		533333	533333	0.0	533333	533333	0.0

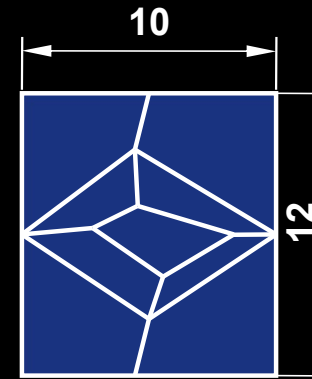
TEST DE LA PARCELA: Mallas utilizadas



Malla 4



Malla 5



Malla 6

Datos: $E = 2.0e6$; $\nu = 0.25$; $esp. = 0.20$

RESULTADOS – DEFORMACION NULA

TEST	Malla	σ_x esp.	σ_x obt.	Error %	σ_y esp.	σ_y obt.	Error %
Def. nula en x	4	0.0	0.0	0.0	0.0	0.0	0.0
Def. nula en y		0.0	0.0	0.0	0.0	0.0	0.0
Def. nula ambas dir.		0.0	0.0	0.0	0.0	0.0	0.0
Def. nula en x	5	0.0	0.0	0.0	0.0	0.0	0.0
Def. nula en y		0.0	0.0	0.0	0.0	0.0	0.0
Def. nula ambas dir.		0.0	0.0	0.0	0.0	0.0	0.0
Def. nula en x	6	0.0	0.0	0.0	0.0	0.0	0.0
Def. nula en y		0.0	0.0	0.0	0.0	0.0	0.0
Def. nula ambas dir.		0.0	0.0	0.0	0.0	0.0	0.0