Pregunta **1**

Correcte

Puntuació 10,00 sobre 10,00

Consider the 2D domain meshed according to data in **meshcirclediamont.m**. Assume it represents a circle plate with a rhomboid-shaped hole. The temperature on the plate is given by the solution of the BVP defined by the equation $-k_c \Delta T = f$, with $f = 22.09$, $k_c = 5$. The temperature is fixed $T = 24.10$ only on the upper left side of the rhombus boundary. Furthermore, a convection condition with $\beta = 5$ and $T_\infty = 21$ is imposed on the circle boundary.
Answer the following questions:
(a) (2 points) The value of K_{23}^{50}

- 3.4165e+00
- -7.3919e-01 ✔
- 3.7448e+00
- -1.3879e+00
- Leave it empty (no penalty)

Puntuació 2,00 sobre 2,00

La resposta correcta és: -7.3919e-01

Hint: $K_{11}^{50} = 3.7448e+00$
(b) (4 points) The mean value of the temperature in the nodes on the rhomboid-shaped hole boundary

- Leave it empty (no penalty)
- 2.2185e+01
- 2.3678e+01 ✔
- 9.8950e+00
- 4.9256e+00

Puntuació 4,00 sobre 4,00

La resposta correcta és: 2.3678e+01

Hint: The maximum value of the temperature at the nodes is 2.4100e+01
(c) (4 points) The temperature for the point p of the element 31 with barycentric coordinates (0.25, 0.25, 0.5) is

- 3.8339e+01
- 2.3213e+01 ✔
- Leave it empty (no penalty)
- 5.0676e+00
- 1.5697e+01

Puntuació 4,00 sobre 4,00

La resposta correcta és: 2.3213e+01

Hint: The temperature on the node 50 is 2.2820e+01

Torna a començar | Desa | Emplena amb les respostes correctes | Envia i acaba | Tanca la previsualització

Informació tècnica