Pregunta **1**

No s'ha respost encara

Puntuat sobre 10,00

Consider the meshed domain $\Omega = [-L, L] \times [-L, L]$, obtained by the function **generateMeshT.m** (available at Atenea) with $L = 4$ and $nDiv = 20$ subdivisions.
[nodes,elem] = generateMeshT(-L,L,nDiv)
The material, in normalized units, has a conductivity coefficient $k_c = 1.23$ and no internal heat term is considered. We want to compute the temperature distribution $u(x, y)$ on Ω when the following BC are applied: $u(-4, y) = u(4, y) = 19$ as essential BC and $q(x, -L) = q(x, L) = -2$ as natural BC.
(a) (4 points) Compute the temperature at the **point** (0.5,0.903)
Hint: The minimum reached temperature is 1.3705e+01.

- 2.7028e+01
- Leave it empty (no penalty)
- 3.0054e+01
- 2.6388e+01
- 1.6626e+01

(b) (3 points) Compute the **mean** of the temperatures of the nodes placed below the diagonal line joining (-L,-L) with (L,L) (with its nodes included).

- Leave it empty (no penalty)
- 2.3918e+01
- 2.7613e+01
- 1.6881e+01
- 1.8245e+01

(c) (3 points) Consider now, with the same previous BC, that a point heat focus is applied at the center point keeping it at constant temperature u=48
Compute the temperature reached at the **point** (0.5,0.903) in this case.
Hint: The temperature at node 33 is 1.9962e+01.

- 2.9463e+01
- 2.5461e+00
- 1.3749e+01
- 8.5999e+00
- Leave it empty (no penalty)

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

Informació tècnica

Comportament que s'està utilitzant: Retroalimentació diferida

Fracció mínima: -0.25

Fracció màxima: 1