Pregunta **1**

No s'ha respost encara

Puntuat sobre 10,00

In (1), set $f(x) = 1.0 \,\forall\, 0 \le x \le \pi$, and let $\{u_n\}_{n=1\div4}$ be the nodal solution of the BVP computed by the FEM using two elements: a quadratic one, $\Omega^1 = [0, \pi/2]$, and a linear one, $\Omega^2 = [\pi/2, \pi]$, where global nodes are numbered in ascending order from left to right (so node 1 is the leftmost and node 4 is the rightmost). Therefore:

(a) (4 points) The component F_3 of the global load vector is

○1.0472e+00

○1.0367e+00

○Leave it empty (no penalty)

○1.0577e+00

○1.0681e+00

(b) (4 points) The value of u_0' such that the value of u_2 is twice the value of u_3 is

○2.8773e+00

○2.9645e+00

○Leave it empty (no penalty)

○2.9354e+00

○2.9063e+00

Hint. If $f(x)$ was also constant, but half the given value, then u_0' would be $u_0' = 1.4532e+00$.

(c) (2 points) For the value of u_0' found in (b), the corresponding value of Q_4 is

○Leave it empty (no penalty)

○-2.3997e-01

○-2.3291e-01

○-2.3526e-01

○-2.3762e-01

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

[Informació tècnica] ▼

❓

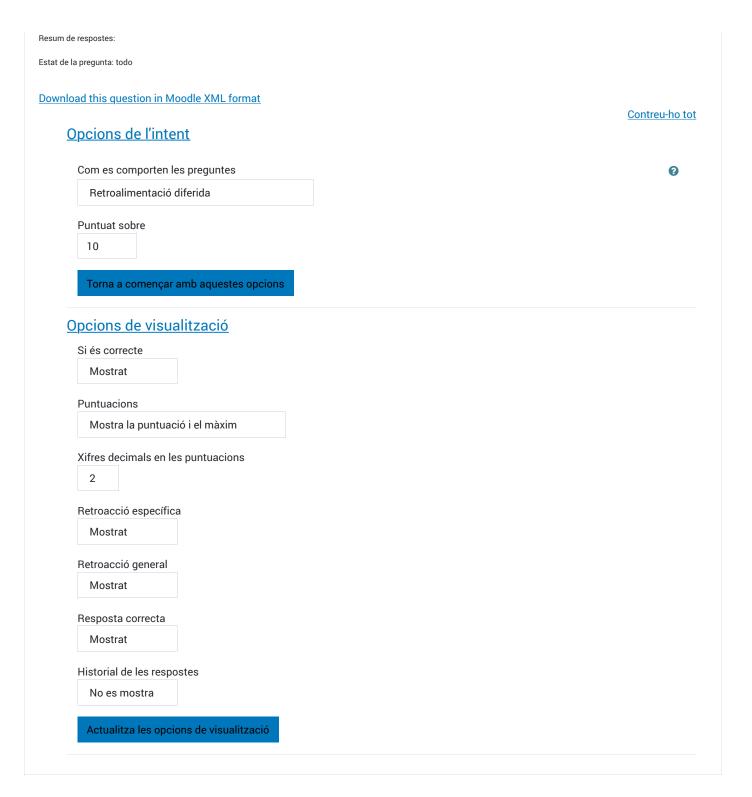Comportament que s'està utilitzant: Retroalimentació diferida

Fracció mínima: -0.25

Fracció màxima: 1

Variant de pregunta: 1

Resum de la pregunta: In (1), set \(f(x) = 1.0\) \(\forall 0\le x \le \pi \), and let \(\{u_{n}\}_{n=1\div 4}\) be the nodal solution of the BVP computed by the FEM using two elements: a quadratic one, \(\varOmega ^{1} = [0,\pi /2]\), and a linear one, \(\varOmega ^{2} = [\pi /2,\pi]\), where global nodes are numbered in ascending order from left to right (so node \(1\) is the leftmost and node \(4\) is the rightmost). Therefore: (a) (4 points) The component \(F_{3}\) of the global load vector is {1.0472e+00; 1.0367e+00; Leave it empty (no penalty); 1.0577e+00; 1.0681e+00} (b) (4 points) The value of \(u'_{0}\) such that the value of \(u_{2}\) is twice the value of \(u_{3}\) is {2.8773e+00; 2.9645e+00; Leave it empty (no penalty); 2.9354e+00; 2.9063e+00} Hint. If \(f(x)\) was also constant, but half the given value, then \(u'_{0}\) would be \(u'_{0} = \) 1.4532e+00. (c) (2 points) For the value of \(u'_{0}\) found in (b), the corresponding value of \(Q_{4}\) is {Leave it empty (no penalty); -2.3997e-01; -2.3291e-01; -2.3526e-01; -2.3762e-01}

Resum de la resposta correcta: part 1: 1.0472e+00; part 2: 2.9063e+00; part 3: -2.3526e-01

Resum de respostes:

Estat de la pregunta: todo

[Download this question in Moodle XML format](#)

[Contreu-ho tot](#)

Opcions de l'intent

❓

Com es comporten les preguntes

Retroalimentació diferida

Puntuat sobre

10

Torna a començar amb aquestes opcions

Opcions de visualització

Si és correcte

Mostrat

Puntuacions

Mostra la puntuació i el màxim

Xifres decimals en les puntuacions

2

Retroacció específica

Mostrat

Retroacció general

Mostrat

Resposta correcta

Mostrat

Historial de les respostes

No es mostra

Actualitza les opcions de visualització