

Homework 5

Due May 11 2021

1. Hughes FEM book, page 106, exercise 7.
2. Hughes FEM book, page 107, exercise 8.
3. Hughes FEM book, page 161, exercise 6.
4. Hughes FEM book, read Appendix 3.1.
5. Hughes FEM book, page 169, exercise 1.
6. (Final project stage 2: Design your FEM) State the strong-form, the weak-form, the Galerkin, and the matrix problem for your project. In particular, please give a discussion of the physical background of the strong-form problem, what type of elements you choose, and any special consideration in terms of the numerics in your problem.