

Homework 7

April 11, 2017

Problem 1. Braess book 6.13

Problem 2. Braess book 6.17

Problem 3. Braess book 7.10

Problem 4. Braess book 7.12

Project Topic

- 1. nonconforming FEM for Poisson equation with curved boundary
- 2. mixed FEM for Poisson or Stokes problems
- 3. A Posteriori estimate and adaptive method for Poisson equation
- 4. multigrid method
- 5. domain decomposition method (refer to 王烈衡, 许学军 book).
- 6. multiscale finite element for numerical homogenization
<http://users.cms.caltech.edu/~hou/papers/msfemjcp.pdf>