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discretized domain. A global matrix system is formed after the assembly of all elements. This lecture is divided into two chapters. Chapter 1 describes one-dimensional boundaryvalue problems with applications to electrostatic problems described by the Poisson's equation. The accuracy of the finite element method is evaluated for linear and higher order elements by computing the numerical error based on two different definitions. Chapter 2 describes twodimensional boundary-value problems in the areas of electrostatics and electrodynamics (time-harmonic problems). For the second category, an absorbing boundary condition was imposed at the exterior boundary to simulate undisturbed wave propagation toward infinity. Computations of the numerical error were performed in

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