The main motivation for studying cubic and biquadratic reciprocity is to decide, whether the congruences $x^3 \equiv a\,(p)$ or $x^4 \equiv a\,(p)$, where $a \in \mathbb{Z}$, p prime, have any integer solution. The core of this thesis will be to prove the laws of cubic and biquadratic reciprocity through gradually built theory in the rings of Eisenstein and Gaussian integers. In addition, for both of these theorems, we will take a closer look at the special cases, in which they cannot be used. This will lead us to the derivation of the supplement to the law of cubic (or biquadratic) reciprocity. Finally, we will show how these results can be applied to the problem of solvability of mentioned congruences.