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Minimal polynomials of algebraic numbers with rational parameters

We describe the polynomials in the following three families: the family of minimal polynomials of algebraic numbers having rational real part, the family of minimal polynomials of algebraic numbers having rational imaginary part, and the family of minimal polynomials of algebraic numbers having rational modulus. Also, we show that no polynomial in the first family can be the minimal polynomial of two algebraic numbers having different rational real parts. Similar results are proved for each of the other two families. We also describe the polynomials in each of the intersections of the families.