1033-03-188   **Valentina S. Harizanov*** (`harizanv@gwu.edu`), Department of Mathematics, Washington, DC 20052. *Computable algebra.* Preliminary report.

The study of computability in algebraic constructions started with Frőhlich and Shepherdson in 1955 and 1956 and Rabin in 1958 and 1960. They showed that when the original data are presented in a computable way, some mathematical constructions are algorithmic, while the others can be modified to become algorithmic, or cannot be done algorithmically in principle. We will present some recent developments in computable algebra and illustrate general concepts and results by a variety of examples and counterexamples. (Received September 10, 2007)