

# SAGE

## Software for Arithmetic Geometry Experimentation

SAGE is a framework for number theory, algebra, and geometry computation, written by William Stein and [others](#). It is open source and freely available under the terms of the [GPL](#). SAGE *includes* the following software:

- Group theory and combinatorics -- GAP
- Symbolic computation and Calculus -- Maxima
- Commutative algebra -- Singular
- Number theory -- PARI, MWRANK, NTL
- Numerical analysis -- Numeric (a Python module)
- Mainstream programming language -- Python
- Interactive Shell -- IPython

In addition, SAGE has implemented interfaces to many other programs, such as MAGMA, KANT, and gnuplot.

SAGE runs on Mac OS X, Linux and Windows and has both binary and source distributions.

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