

What is mathematics?

Profound study of nature is the most fertile source of mathematical discoveries.

J. Fourier, *Analytic theory of heat*, 1830.

It is true that Mr. Fourier had the opinion that the principal purpose of mathematics was the benefit of the society and the explanation of phenomena of nature; but a philosopher like he should know that the sole purpose of science is the honour of the human mind, and under this title, a question about numbers is as valuable as a question about the system of the world.

C. G. J. Jacobi, Letter to Le Gendre, July 2, 1830.

All mathematics is divided into three parts: cryptography (paid for by CIA, KGB and the like), hydrodynamics (supported by manufacturers of atomic submarines) and celestial mechanics (financed by military and other institutions dealing with missiles, such as NASA).

V.I. Arnold, in: *Mathematics: Frontiers and Perspectives*, AMS, 2000.