THE SUPPORT OF MATHEMATICAL RESEARCH BY THE NATIONAL SCIENCE FOUNDATION

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1. The present terms of support of mathematics by the Foundation.
The writer has recently completed a short term as Acting Program Director for Mathematics in the National Science Foundation. One residue of this experience is the realization that the National Science Foundation Act of 1950 did not in itself create a new era in which a non-military arm of the Government will support *basic* research in theoretical mathematics without the demand of direct military or even physical science relatedness. It will take a great deal of building within the framework of the Act to realize this objective. The mathematicians, who are without doubt the poorest politicians in the world, do not seem to realize that a non-military arm of the Government must show the actual need and must justify the requests for appropriations for mathematics in itself instead of asking for appropriations for the defense of the country, a much stronger appeal. Hence we must express our needs for support from the National Science Foundation in the form of proposals. These can be submitted to more than one agency if both agencies are so informed.

The submission of these proposals should be regarded as a form of public service or service to mathematics. Inevitably some good proposals will have to be rejected until adequate appropriations are secured to permit the support of mathematics in ways not now covered by the military agencies. We must accept this outcome without wounded feelings, for the principles which govern the decisions on what to support and what not to support, or even what can be supported, are not formulated. Moreover one cannot expect a full explanation of the reasons for rejection of any particular proposal while another is granted. This is too difficult.

To date, the National Science Foundation has granted a number of predoctoral and postdoctoral fellowships in mathematics, has made a few individual research grants and one group research grant, has provided for the support of a Summer Research Institute in mathematics, has set up a provision for assisting in travel to foreign scientific meetings which has benefitted some mathematicians and has made an arrangement with the National Bureau of Standards for making high-speed digital computation available for non-military research in universities. It is supporting a survey, jointly with other agencies, of Applied Mathematics. It is also considering the support

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