TABLE OF CONTENTS

Chapter I.

Fourier transform and the nilmanifold $\Gamma \setminus N$
Chapter II. Functions on $\Gamma \backslash N$ and theta functions
Chapter III. Elementary transformation theory
Appendix to Chapter III. Cohomology and theta functions
Chapter IV. Theta functions and distinguished subspaces
Appendix B. The arithmetic of distinguished subspaces
<u>References.</u>
Appendix C. Fourier analysis on the Heisenberg manifold