Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
1981 Volume VI: Computing

Introduction

Our spring 1981 seminar emphasized the use of the computer as a tool to enhance the teaching of high school mathematics. The ten participating Fellows all agreed that "remedial math" represented the most urgent teaching need and most term projects reflected this conclusion. Nine projects were completed using programs written in the BASIC language which could easily be run on small minicomputers of modest cost. I have listed the completed projects below in order of increasing conceptual difficulty. Descriptions of these projects appear on the following pages.

William R. Bennett, Jr.

1) Joyce Bryant, Math on the Computer. A brief history of the computer; list of terms and definitions; some simple programming examples.

2) Sheryl A. DeCaprio, Flowcharting. A Method of Problem Solving. Description of flowchart terms with simple examples.

3) John Crotty and Joseph Cummins, The Effective Use of Computers in Applied Mathematics. Graphic display programs to illustrate the meaning of fractions. (Written in BASIC for the Hewlett Packard 2100.

4) Geoffrey P. Smith, An Introduction to the Use of Computers. A set of teaching programs written in TRS80 BASIC which review elementary arithmetic.

5) Anthony P. Solli, Looking into the Connecticut Daily Numbers. Programs written in Hewlett-Packard 2100 BASIC to show the nature of random numbers.

6) Nancy Wyskiel, Understanding BASIC programming for Remedial Students. Elementary introduction to programming in BASIC.

7) Lauretta J. Fox, Introducing Computer Programming in a Traditional Classroom. Formulas and programs to find areas of common plane figures (triangles, trapezoids, etc.)

8) Kathleen M. Huhner, The Basics of BASIC. Discussion of standard BASIC programming techniques (Flowcharts, use of loops, etc.)

9) James F. Langan, Graphing and the Computer. Two programs in Hewlett-Packard 2100 BASIC illustrate simple xy plotting and more advanced projective geometry (stereograms and rotation matrices).