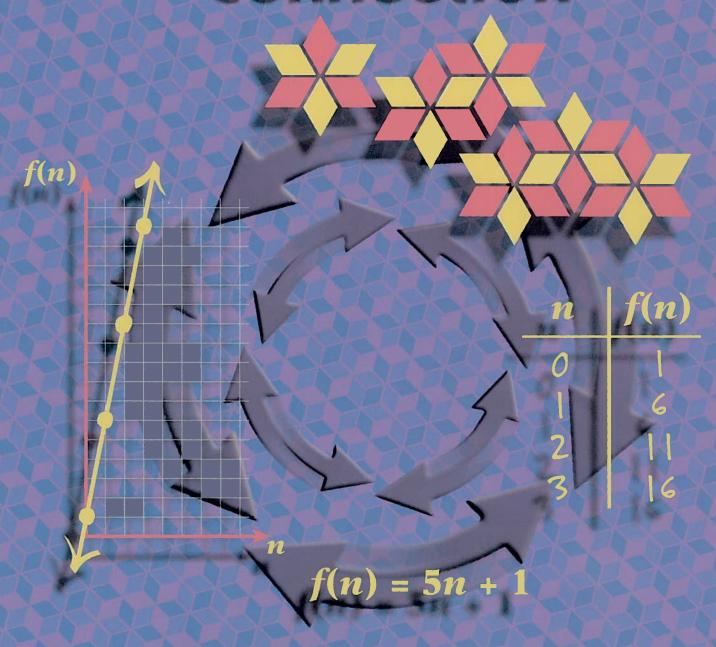
## Pattern and Function Connection



Key Curriculum Press

Blackline Activity and Homework Masters

Brad S. Fulton Bill Lombard

## The Pattern and Function Connection

**Brad S. Fulton • Bill Lombard** 

The Pattern and Function Connection introduces students in pre-algebra and algebra to the fundamental concept of function and its multiple representations. Use these progressively paced activities as either an introductory unit or as specialized review. Your students will transition from concrete to abstract as they



recognize geometric patterns and number patterns,



use T-tables to record the sequences of patterns,



graph linear and non-linear functions,

 $\mu_{yy} = s_{yy}$  write formulas in function and x-y notation, and



navigate between these multiple forms of function.

The activities include blackline master worksheets and homework pages and feature examples of functions drawn from real-world applications. Full teacher notes and solutions are provided.

Take advantage of this book to help your students establish the pattern and function connection.





## **Contents**

Introduction		v
NCTM Princi	ples and Standards Alignment	vii
Teaching The	Pattern and Function Connection	ix
ACTIVITY 1:	<b>Exploring Patterns</b>	1
ACTIVITY 2:	<b>Graphing Functions</b>	11
ACTIVITY 3:	Slope and Intercept	21
ACTIVITY 4:	Working Backward	27
ACTIVITY 5:	Advanced Functions	33
ACTIVITY 6:	Nonlinear Functions	42
ACTIVITY 7:	Banking on Algebra	45
ACTIVITY 8:	The Long-Distance Connection	53
ACTIVITY 9:	A Nutty Function	60
ACTIVITY 10:	The Great Yo-Yo Festival	65
ACTIVITY 11:	The King's Pathway	73
APPENDIX A:	Pattern Masters	87
APPENDIX B:	More Problem-Solving Activities	147
APPENDIX C:	Linear Functions Test	154
APPENDIX D:	<b>Graph Paper Masters</b>	157