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Map; 5.7 We Must Also Make the Map of the Outer Subdivision; 5.8 Let Us Calculate Areas; 6. A PETAL PATTERN FROM HEXAGONS?; 6.1 The Origamics Logo; 6.2 Folding a Piece of Paper by Concentrating the Four Vertices at One Point; 6.3 Remarks on Polygonal Figures of Type n; 6.4 An Approach to the Problem Using Group Study; 6.5 Reducing the Work of Paper Folding; One Eighth of the Square Will Do
6.6 Why Does the Petal Pattern Appear?6.7 What Are the Areas of the Regions?; 7. HEPTAGON REGIONS EXIST?; 7.1 Review of the Folding Procedure; 7.2 A Heptagon Appears!; 7.3 Experimenting with Rectangles with Different Ratios of Sides; 7.4 Try a Rhombus; 8. A WONDER OF ELEVEN STARS; 8.1 Experimenting with Paper Folding; 8.2 Discovering; 8.3 Proof; 8.4 More Revelations Regarding the Intersections of the Extensions of the Creases; 8.5 Proof of the Observation on the Intersection Points of Extended Edge-to-Line Creases; 8.6 The Joy of Discovering and the Excitement of Further Searching
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10.2 Begin with a Simpler Problem: How to Divide the Rectangle Horizontally and Vertically into 3 Equal Parts

Sommario/riassunto

The art of origami, or paper folding, is carried out using a square piece of paper to obtain attractive figures of animals, flowers or other familiar figures. It is easy to see that origami has links with geometry. Creases and edges represent lines, intersecting creases and edges make angles, while the intersections themselves represent points. Because of its manipulative and experiential nature, origami could become an effective context for the learning and teaching of geometry. In this unique and original book, origami is an object of mathematical exploration. The activities in this book diff