Verifying Properties of Squares

Activity 3
1) Find the center of the square by folding the two mid parallels.
2) The two mid parallel lines form four smaller squares. Compare the area of each small square the area of the original square.
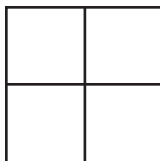

Figure 4

- *What can you tell about the angle formed by the mid parallels?*
- *What can you say about the lengths of the sides of the four small squares?*

Activity 4
1) Find the center of the square by folding the two diagonals.
2) Verify that in a square the diagonals cut each other in half.
3) Verify that the diagonals of a square intersect each other at a right angle.
4) The two diagonals form four right triangles.
   - *What can you say about the area of these four triangles?*

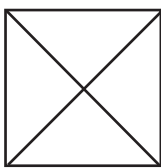Compare the area of one triangle to the area of the original square.

Figure 5

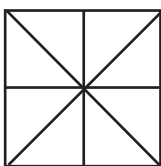5) Verify that the diagonals and the mid parallels cross indeed in the same point.

Figure 6

Activity 5
1) Compare the area of one of the triangles formed by the two diagonals with the area of one of the small squares formed by the to mid parallels.
2) Compare the shaded areas.

Figure 7