Practice 5.1.3: Applying Lines of Symmetry

Use what you've learned about symmetry to answer the questions.

1. What shape has an infinite number of lines of symmetry?

2. How many lines of symmetry does a regular hexagon have?

3. Can a quadrilateral with four equal sides have less than four lines of symmetry?

4. How many lines of symmetry does an isosceles triangle have?

5. How many lines of symmetry does a scalene triangle have?

6. What is the smallest number of degrees needed to rotate a regular pentagon around its center onto itself?

7. What relationship is formed by a line of symmetry and the line between opposite points in the symmetry?

8. How many lines of symmetry are there in one of the five-point stars on the American flag?

9. The face of a cat is symmetrical, with the bridge of the nose falling on the line of symmetry directly between the eyes. If a cat's right eye is 3 inches from the bridge of its nose, how far is the cat's left eye from its right eye?

10. How many different ways can a cube be sliced into 2 equal halves?