



✓ Self-Check: Questions 1-3

Cut out the pieces of the puzzle on the *Mosaic Puzzle* page in the *Student Activity Book*. Use the puzzle pieces to answer Self-Check: Questions 1-3.

- Study the pieces. What can you do with these pieces?
- A. What shape names can you give each piece?
B. What shape name tells the most about each piece?
- Try to put the pieces back together in a large rectangle. Close your book, so you cannot see the puzzle.

Use the following menu to choose the problems you will complete to practice describing and analyzing shapes using their properties.

- Decide if you are "Working On It", you are "Getting It", or you already "Got It" to choose which problems you should complete.
- If one set of problems seems too easy or too hard, choose a different set to complete.

Can I Do This?	Working On It! I could use some extra help.	Getting It! I just need some more practice.	Got It! I'm ready for a challenge.
Describe and analyze shapes using their properties.	★Q# 4-8, 10	●Q# 6-10	■Q# 6-11

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Use the *Mosaic Puzzle* pieces from the *Student Activity Book* to answer Questions 4-11. Use the shapes names and numbers. The *Polygon Names* pages in the Reference section may help you.

- ★4. I have three sides. One of my angles is obtuse. Who am I?
- ★5. I have three equal sides. Who am I?
- ★●6. A. I have four sides. I have two pairs of parallel sides. Who am I?
B. Trace the shape that answers this riddle. Use your drawing to show and tell how you know your answer is correct.
- ★●7. I am not a quadrilateral. All of my angles are equal. Who am I?
- ★●8. I am a quadrilateral. All of my angles are equal. Who am I?
- 9. I have four sides. Two sides that meet at an acute angle are equal. Who am I?
- ★●10. How are Shapes 3 and 4 from the Mosaic Puzzle pieces alike? How are they different? Look at the number of sides, length of sides, number of angles, and size of angles. Use drawings and words in your answer.
- 11. How are Shapes 4 and 7 from the Mosaic Puzzle pieces alike? How are they different? Think about their properties. Use drawings and words in your answer.

Use the *Classifying Shapes* pages in the *Student Activity Book* to practice identifying congruent shapes; lines of symmetry; and slides, flips, and turns.

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*Answers and/or discussion are included in the lesson.

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Questions 1-17 (SG pp. 426-446)

- Responses will vary. Students may say they can combine shapes to make other shapes they have, make new shapes, or sort the shapes into groups.
- A.* Responses will vary. Students can use quadrilateral, rectangle, triangle, trapezoid, and parallelogram. For triangles they can use the terms right, obtuse, acute, isosceles, scalene, and equilateral.
B.* Shape 1 - isosceles triangle
Shape 2 - equilateral triangle or regular triangle
Shape 3 - rectangle
Shape 4 - trapezoid
Shapes 5 and 6 - right triangle
Shape 7 - trapezoid

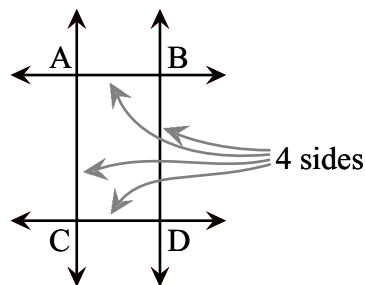
3.* See lesson.

4. 1; isosceles triangle

5. 2; equilateral triangle

6. A. 3; rectangle

B. \overleftrightarrow{AB} is parallel to \overleftrightarrow{CD}
 \overleftrightarrow{AC} is parallel to \overleftrightarrow{BD}



7. 2; equilateral triangle


8. 3; rectangle

9. 7; trapezoid or quadrilateral

10. Possible responses: They both have four sides. Shape 3 has two pairs of parallel sides, but shape 4 has only one. All of shape 3's angles are right angles, while shape 4 has two acute angles and two obtuse angles.

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11. Possible responses: They both have four sides. They both have one pair of parallel sides, so they are both trapezoids. Shape 4 has two pairs of matching angles, Shape 7 has all different angles. They both have two acute and two obtuse angles.
12. Isabel is a hexagon. She has six lines of symmetry and six vertices.
13. A hexagon is more important. It has six lines of symmetry and six vertices, whereas a square has four lines of symmetry and four vertices. The people with more lines of symmetry and vertices are more important.
14. A square has more lines of symmetry than a non-square rectangle.
15. The farmers are all right triangles. They are not important as they have only three vertices, and at most one line of symmetry.
16. Hugo Left is congruent to Izzie Right, as they are reflections, or flips, of each other.
17. Professor Peabody showed that the Lefty and Righty triangles were actually the same shapes, just flipped in two different directions.



Use the Journey to Flatopia story to answer the following questions.

- 12. What kind of shape is Isabel Newton? How many lines of symmetry does she have? How many vertices does she have?
- 13. Who is more important in Flatopia, a hexagon or a square? Why?
- 14. Why is a square considered more important than a non-square rectangle?
- 15. What shape are the farmers in Flatopia? Are they considered important people there? Why or why not?
- 16. Is the farmer named Hugo Left congruent to Izzie Right? Show or tell how you know.
- 17. How did Professor Peabody solve the right triangle feud?

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