

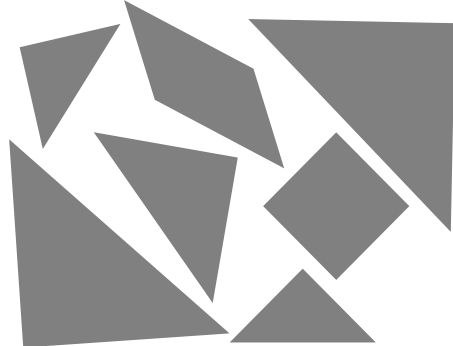
Student Guide

Tangrams (SG p. 303)  
Questions 1–2

1. Students' tangram designs will vary.
- 2.\* Students' sorts will vary. See the lesson Part 1 for some possible sorts.

**Tangrams**

The tangram is an old Chinese puzzle that has seven pieces called tans:



These tans can be put together in many ways. Designs made with these pieces are called **tangrams**. Some tangrams look like animals or other real things. Usually, all seven tans are used. The only rule is that the pieces must touch without overlapping. You may be able to find a book with tangrams at the library.

**Explore**

1. Use all 7 tans to make a tangram.
2. Sort the 7 tangram pieces in any way you choose.

Record the groups on the *Tangram Sort* page in the *Student Activity Book*.

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Homework (SG p. 304)  
Questions 1–5


1. Answers will vary. Possible response: The other pieces that could go with the large triangle are the other large triangle, the medium triangle, and the two small triangles because they all have 3 sides. Another possible response: The other large triangle because they are a pair.
2. Natasha put all of the pieces with right angles in one group, and the parallelogram with no right angles in the other group.
3. Mark put all the 3-sided shapes in one group and all the 4-sided shapes in the other group.
4. Responses will vary. Possible response: They are alike because they have 4 corners and 4 angles, and they are different because the square has 4 lines of symmetry and the parallelogram has no lines of symmetry.
5. Responses will vary. Possible response: All the pieces except the parallelogram can be grouped together because they have at least one right angle.

**Homework**


Think about the set of tangram pieces when you answer the questions.



1. Mara is sorting her tangram pieces. What other pieces can be grouped with the Large Triangle? Explain why you chose to group those pieces.
2. Natasha sorted her pieces into the two groups below. Explain why she grouped them that way.



3. Mark sorted his pieces into the two groups below. Explain why he grouped them that way.
4. Darius wondered, "How are these 2 tans alike and how are they different?" What would you tell him?
5. Kathy grouped all 7 tangram pieces together. "They all have corners," she said. Think about the pieces' corners and sort them a different way. Explain why you grouped them the way you did.



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

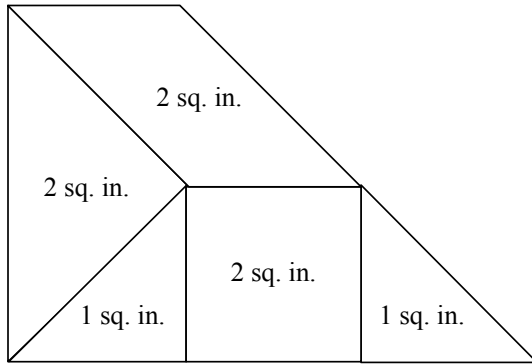


Student Activity Book

Make and Measure (SAB p. 423)  
Homework

Questions 1–2

- Students' shapes and their areas will vary.  
Sample shape:



- Students can use the area of the small triangle or the Area of Tangram Pieces chart to find the total area of the shape. For the sample shape in Question 1, the area is 8 square inches.

Name \_\_\_\_\_ Date \_\_\_\_\_

**Make and Measure**  
**Homework**

Cut out the tangram pieces. Choose only 5 of the pieces and make a design. Glue it onto another piece of paper. Then answer the questions below.

- What is the area of your design?
- How did you find the area of your design?

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**Teacher Guide**

**Find the Area (TG pp. 1–2)**

**Questions 1–2**

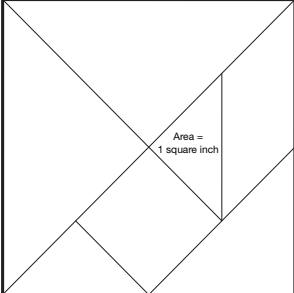
- 1. **A.** 16 square inches
  - B.** Students may use the area of the small triangle to find the area of the whole square.
- 2. 8 square inches

Name \_\_\_\_\_ Date \_\_\_\_\_

**Find the Area**

**Use your tangram set to solve the problems.**

The area of the small triangle is 1 square inch.



1. **A.** Find the area of the whole square above.

**B.** Explain how you found the area of the whole square.

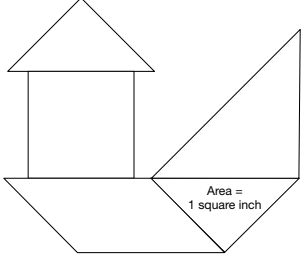
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Name \_\_\_\_\_ Date \_\_\_\_\_

2. Find the area of the shape below.



Area = 1 square inch

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