## Unit 1 Lesson 2: Finding Area by Decomposing and Rearranging

### 1 What is Area? (Warm up)

#### Student Task Statement

You may recall that the term **area**tells us something about the number of squares inside a two-dimensional shape.

1. Here are four drawings that each show squares inside a shape. Select **all** drawings whose squares could be used to find the area of the shape. Be prepared to explain your reasoning.
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1. Write a definition of area that includes all the information that you think is important.

### 2 Composing Shapes

#### Student Task Statement

Your teacher will give you one square and some small, medium, and large right triangles. The area of the square is 1 square unit.

1. Notice that you can put together two small triangles to make a square. What is the area of the square composed of two small triangles? Be prepared to explain your reasoning.
2. Use your shapes to create a new shape with an area of 1 square unit that is not a square. Trace your shape.
3. Use your shapes to create a new shape with an area of 2 square units. Trace your shape.
4. Use your shapes to create a *different* shape with an area of 2 square units. Trace your shape.
5. Use your shapes to create a new shape with an area of 4 square units. Trace your shape.

#### Activity Synthesis



### 3 Tangram Triangles (Optional)

#### Student Task Statement

Recall that the area of the square you saw earlier is 1 square unit. Complete each statement and explain your reasoning.

1. The area of the small triangle is \_\_\_\_\_\_\_\_\_ square units. I know this because . . .
2. The area of the medium triangle is \_\_\_\_\_\_\_\_\_ square units. I know this because . . .
3. The area of the large triangle is \_\_\_\_\_\_\_\_\_ square units. I know this because . . .

#### Images for Activity Synthesis









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