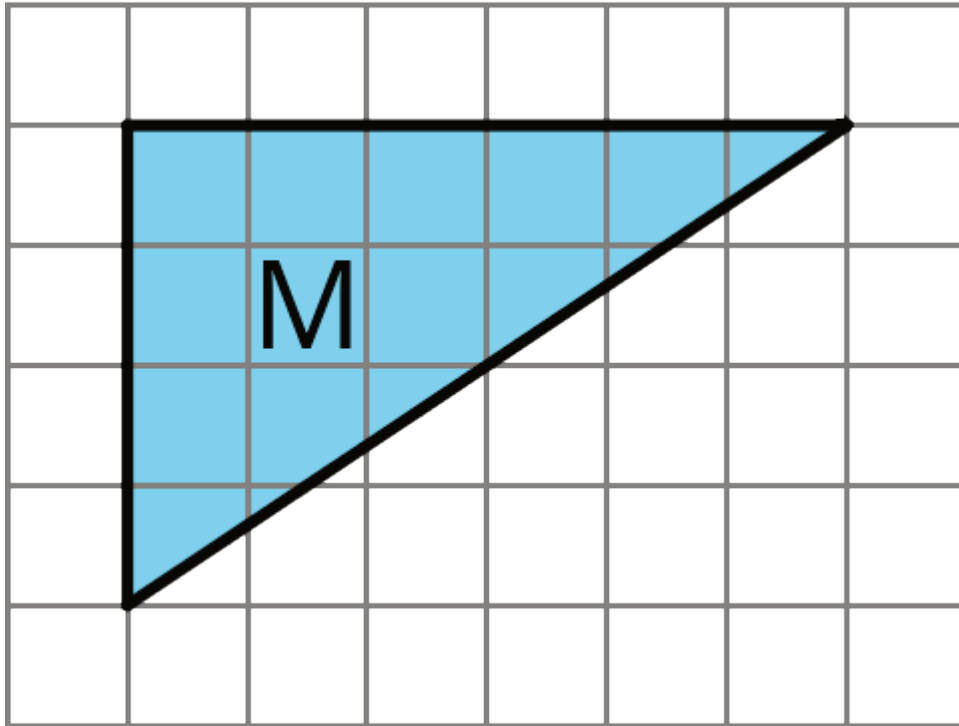# Unit 1 Lesson 8: Area of Triangles
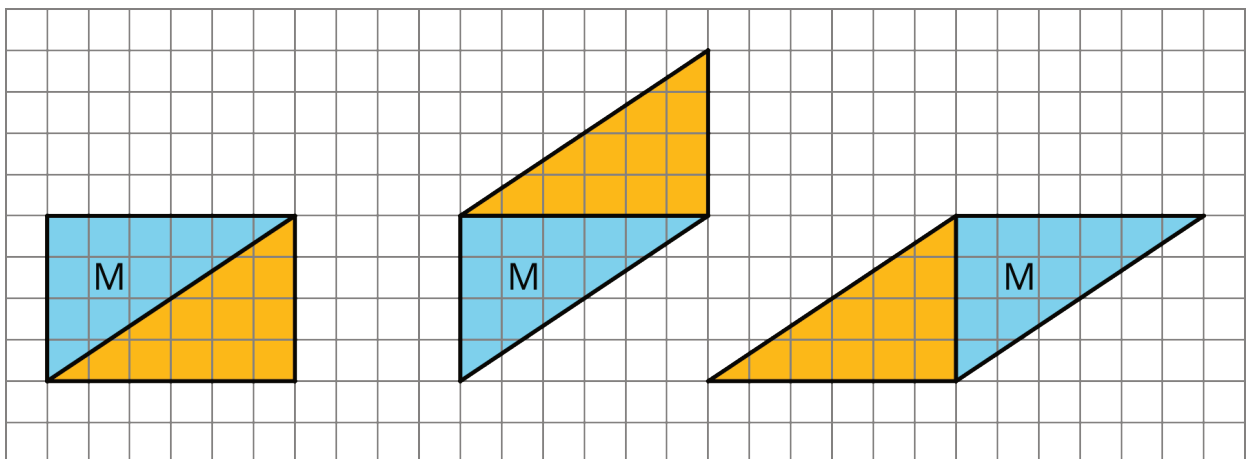
1 Composing Parallelograms (Warm up)

Student Task Statement

Here is Triangle M.

Han made a copy of Triangle M and composed three different parallelograms using the original M and the copy, as shown here.
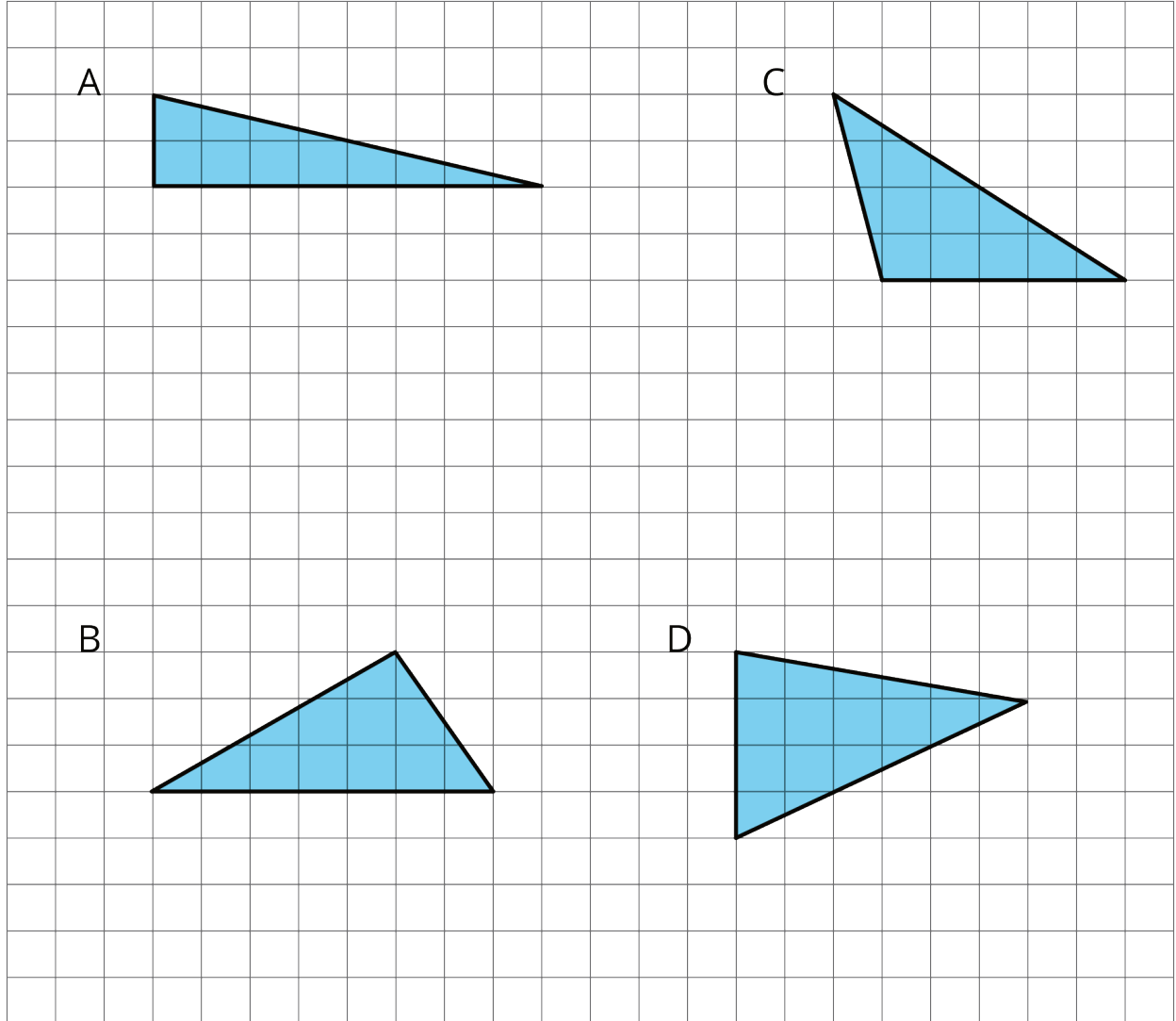
1. For each parallelogram Han composed, identify a base and a corresponding height, and write the measurements on the drawing.

2. Find the area of each parallelogram Han composed. Show your reasoning.

2 More Triangles

Student Task Statement

Find the areas of at least two of these triangles. Show your reasoning.

3 Decomposing a Parallelogram (Optional)

Student Task Statement

1. Your teacher will give you two copies of a parallelogram. Glue or tape *one* copy of your parallelogram here and find its area. Show your reasoning.

2. Decompose the second copy of your parallelogram by cutting along the dotted lines. Take *only* the small triangle and the trapezoid, and rearrange these two pieces into a different parallelogram. Glue or tape the newly composed parallelogram on your paper.

3. Find the area of the new parallelogram you composed. Show your reasoning.

4. What do you notice about the relationship between the area of this new parallelogram and the original one?

5. How do you think the area of the large triangle compares to that of the new parallelogram: Is it larger, the same, or smaller? Why is that?

6. Glue or tape the remaining large triangle to your paper. Use any part of your work to help you find its area. Show your reasoning.