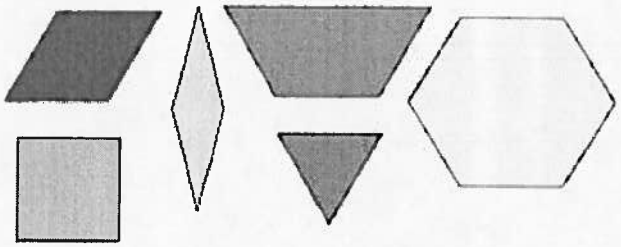
Math in Action Conference
Grand Valley State University
February 22, 2014

Rectangle Dissections



Grade Level: 4th

This activity comes from *Adventures with Mathematics: Climbing from Grade 4 to Grade 5.*

In this activity, students are given a sheet of 2x4 rectangles. They are then challenged to create different shapes by cutting and taping the rectangles together.

The activity meets Common Core State Standard 4.G.A.2 for 4th Grade Geometry:

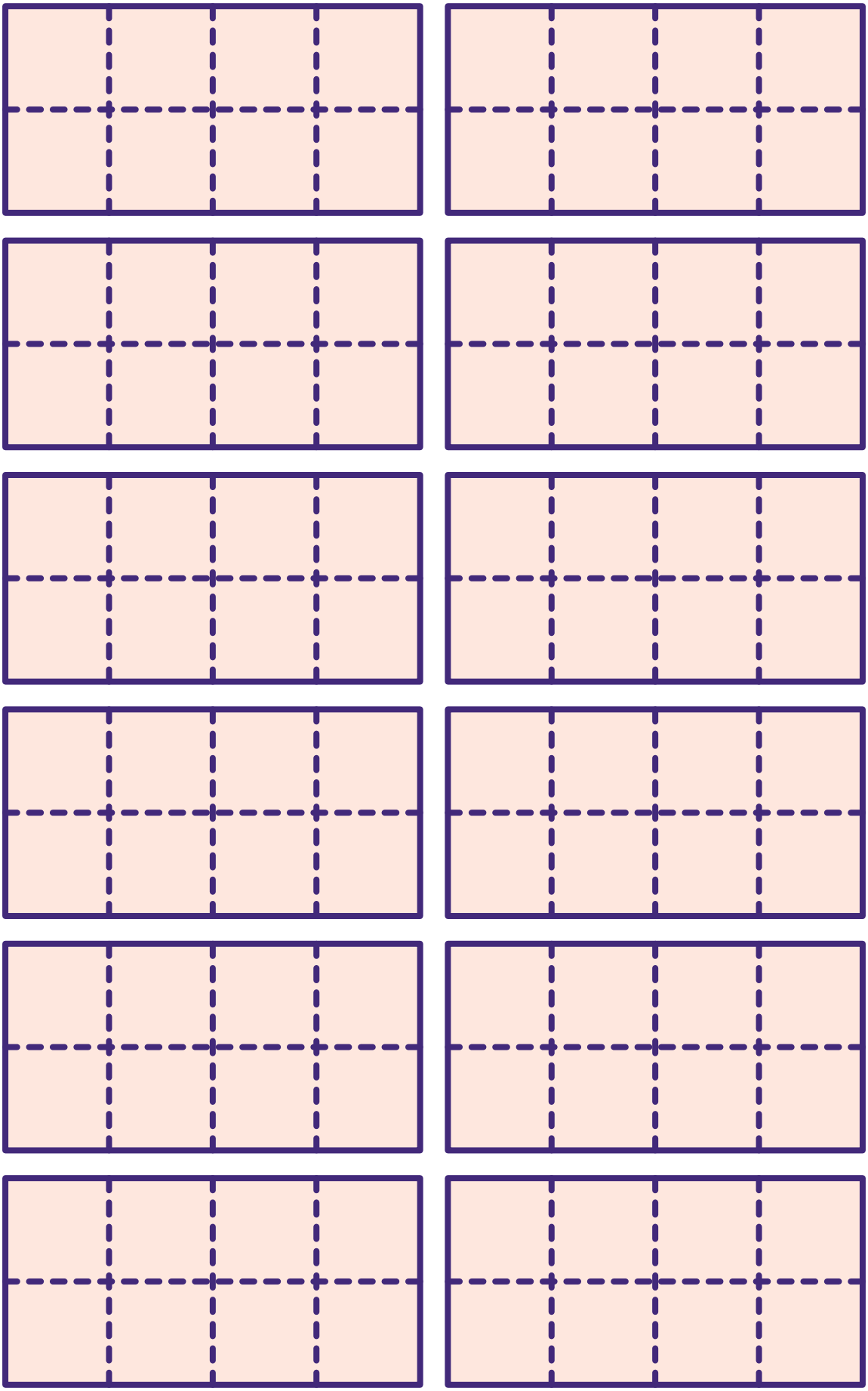
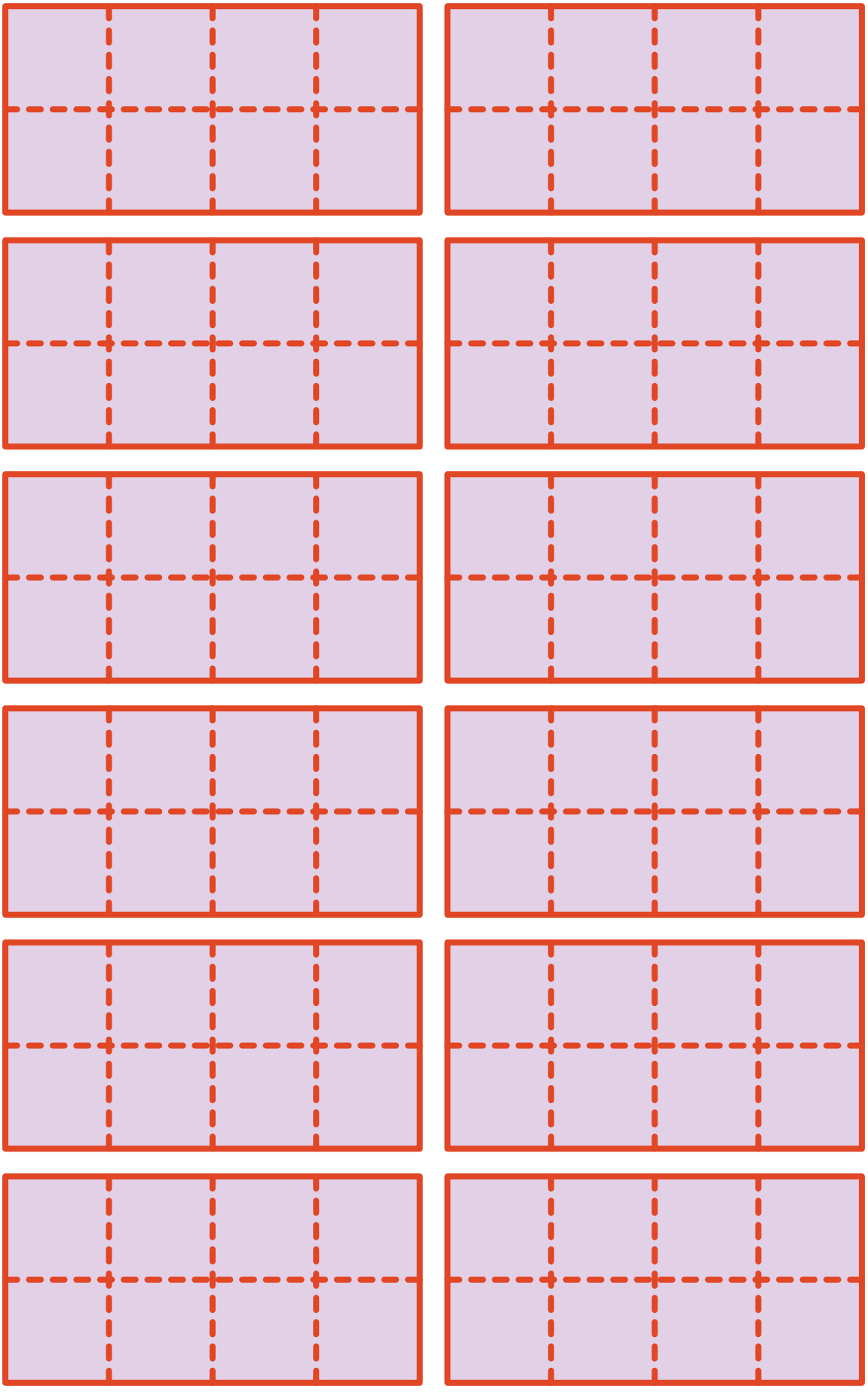
> CCSS.Math.Content.4.G.A.2 Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.

Extension:

For students who are ready to work with area, have them create shapes using the entire rectangle, so that each shape has an area of 8. Then, challenge the students to create area formulas for triangles, parallelograms, and trapezoid. Make sure that they see as long as they use the entire rectangle, the area will be eight.

With the extension, Common Core State Standard 6.G.A.1 for 6th Grade Geometry is met:

> CCSS.Math.Content.6.G.A.1 Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.

For more information on this activity and others like it, visit:

http://www.mictm.org/resources/adventures-with-math