

MY Homework

Lesson 11

Problem Solving: Make a Model

Homework Helper



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Bernie has three identical blocks. Each block has the shape of an acute triangle. If Bernie puts two of the blocks together, what quadrilateral does he form? If he joins the third block to the first two, what new quadrilateral does he form?

1 Understand

What facts do you know?

Bernie has three identical blocks shaped like acute triangles.

What do you need to find?

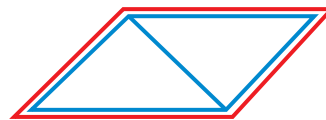
the quadrilaterals that Bernie will form by joining the blocks

2 Plan

Make a model to find the answer.

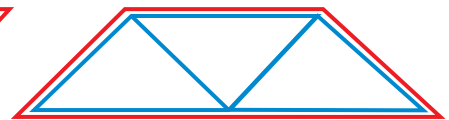
3 Solve

Draw an acute triangle. Join an identical acute triangle to the first one to form a quadrilateral.



The quadrilateral is a parallelogram.

Draw a third acute triangle joined to the first two triangles to form a new quadrilateral.



The new quadrilateral is a trapezoid.

So, Bernie forms a parallelogram and a trapezoid.

4 Check

The figures match the information in the problem.

So, the answer makes sense.



Problem Solving

Solve each problem by making a model.

1. **Mathematical PRACTICE 7 Identify Structure** A quadrilateral has sides that measure 12 centimeters, 10 centimeters, 10 centimeters, and 5 centimeters. The side that measures 12 centimeters is parallel to the side that measures 5 centimeters. What is the figure?

2. **Mathematical PRACTICE 6 Explain to a Friend** Katerina draws a square. She wants to draw one line to divide the square into 2 triangles. Is it possible for her to divide the square into 2 obtuse triangles? Explain.

3. Is it possible for a quadrilateral to have only 2 right angles? If so, draw an example.

4. **Mathematical PRACTICE 7 Identify Structure** Kirby drew a quadrilateral with four right angles, a side that measures 9 centimeters, and a side that measures 6 centimeters. What is the figure? What is its perimeter?

5. **Mathematical PRACTICE 6 Be Precise** Is it possible for a trapezoid to have only 3 right angles? Explain.

My Work!