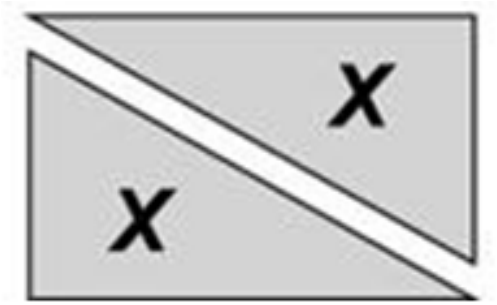
3.G.1 Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.

This question requires additional materials:



You will need two pieces labeled *X* to answer this question.

Use the pieces to make a shape that has these properties.

- It has four sides.
- No pieces overlap.
- No two sides are parallel.

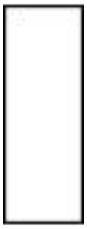
In the space below, trace the shape.

Draw the line to show where the two pieces meet.

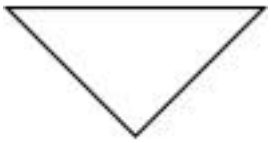
2009-4-5-4
2009-8-5-2

Source: National Assessment of Educational Progress, 2009, Grade 4 and Grade 8 Mathematics Assessments.

Alan says that if a figure has four sides, it must be a rectangle. Gina does not agree. Which of the following figures shows that Gina is correct?

A. 

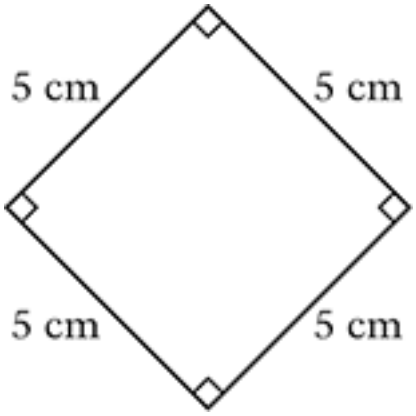
B.

C. 

D.

2003-4-6-7
2003-8-6-7

Source: National Assessment of Educational Progress, 2003, Grade 4 and Grade 8 Mathematics Assessments.



When asked to classify the figure above, here is what four students said.

Ken: “It’s a parallelogram.”

Lynn: “It’s a square or a rhombus.”

Marianne: “It’s a polygon.”

Rosa: “I think that it’s both a quadrilateral and a rectangle.”

Which student or students correctly classified the figure?

A. Lynn only
B. Ken and Marianne only
C. Lynn and Rosa only
D. Ken, Lynn, and Rosa only
E. Ken, Lynn, Marianne, and Rosa

2011-8-8-2

Source: National Assessment of Educational Progress, 2011, Grade 8 Mathematics Assessment.

3.G.2 Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape.