

Explore 10-6

Geometry Lab Investigating Quadrilaterals

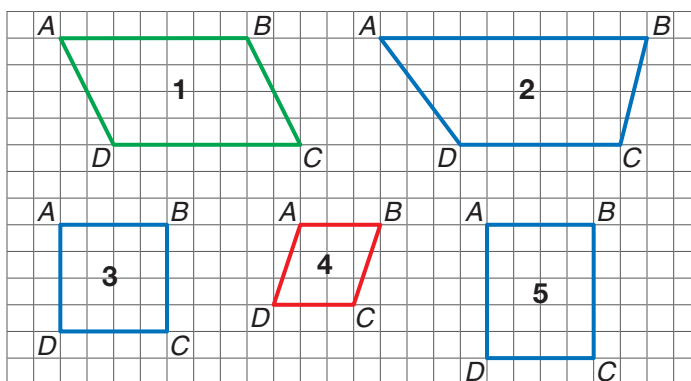
MAIN IDEA

Investigate the properties of special quadrilaterals.

Four-sided figures are called *quadrilaterals*. In this lab, you will explore the properties of different types of quadrilaterals.

ACTIVITY

STEP 1 Draw the quadrilaterals shown on grid paper.



STEP 2 Use a ruler and a protractor to measure the sides and angles of each quadrilateral. Record your results in a table.

Quadrilateral	$m\angle A$	$m\angle B$	$m\angle C$	$m\angle D$	AB	BC	CD	DA
1								
2								

ANALYZE THE RESULTS

- Describe any similarities or patterns in the angle measurements.
- Describe any similarities or patterns in the side measurements.
- MAKE A VENN DIAGRAM** Cut out the quadrilaterals you drew in the activity. Then sort them into categories according to their similarities and differences. Arrange and record your categories in a two-circled Venn diagram. Be sure to label each circle with its category.
- Create two other Venn diagrams illustrating two different ways of categorizing these quadrilaterals.
- WRITING IN MATH** Did you find shapes that did not fit a category? Where did you place these shapes? Did any shapes have properties allowing them to belong to more than one category? Could you arrange these quadrilaterals into a three-circled Venn diagram? If so, how?