

26 Quadrilaterals

SOL 5.15.a

Example

Freddie drew the quadrilateral below.



Which does *not* describe the quadrilateral that Freddie drew?

- A rectangle
- B square
- C rhombus
- D** trapezoid

Thinking It Through


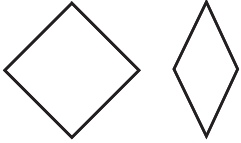



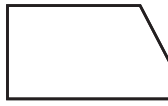

The figure has 2 pairs of opposite parallel sides with 4 right angles and all sides equal.

Solve —*List It* Make a list of different quadrilaterals and see which ones fit the figure.

Quadrilateral	Attributes	Is it?
Rectangle	<ul style="list-style-type: none"> • 2 pairs of opposite parallel sides • 4 right angles 	Yes
Square	<ul style="list-style-type: none"> • 2 pairs of opposite parallel sides • 4 right angles • All sides equal 	Yes
Rhombus	<ul style="list-style-type: none"> • 2 pairs of opposite parallel sides • All sides equal 	Yes
Trapezoid	<ul style="list-style-type: none"> • <i>Exactly</i> 1 pair of opposite parallel sides 	No

The figure can be classified as a rectangle, square, and rhombus. The figure is *not* a trapezoid, answer D.

Review

- A **quadrilateral** is a polygon with 4 sides and 4 angles. The sum of the interior angles of *any* quadrilateral is 360° .
- A quadrilateral with 2 pairs of **parallel** sides is a **parallelogram**. 
- A parallelogram with 4 equal sides is a **rhombus**. 
- A parallelogram with 4 right angles is a **rectangle**. 
- A rectangle with 4 equal sides is a **square**. 
- A quadrilateral with exactly 1 pair of parallel sides is a **trapezoid**.  
- A quadrilateral with 2 pairs of congruent adjacent sides is a **kite**. 

Quadrilaterals

DIRECTIONS Read and solve each question. Then circle the letter of the best answer.

- 1 Which is the *best* classification of a quadrilateral with 2 pairs of parallel sides, 4 right angles, but not all sides equal?

A Parallelogram
 B Rectangle
 C Rhombus
 D Square

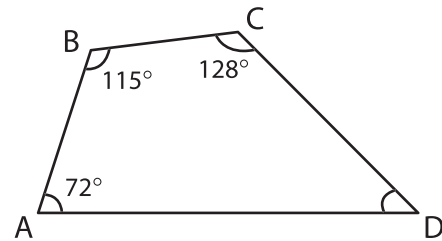


If a diagram is not provided, draw one if it helps you to *see* the problem better.

- 2 A quadrilateral has 4 equal sides but it does not have 4 equal angles. What type of quadrilateral is it?

F Trapezoid
 G Rectangle
 H Rhombus
 J Square

- 3 What is the measure of $\angle D$?



A 25°
 B 35°
 C 45°
 D 55°



The sum of the interior angles of a quadrilateral is 360° .

- 4 Which type of quadrilateral is *not* considered a parallelogram?

F Trapezoid
 G Rectangle
 H Rhombus
 J Square