



GRADE 4 / WATCH MR DJ SOLVE

CLASSIFYING FIGURES BY THEIR PROPERTIES

Start with the same example used in the lesson slides.

**WATCH MR DJ SOLVE**

A square has four equal sides and four right angles. List every category it belongs to: quadrilateral, parallelogram, rectangle, rhombus.

- 1** It has four sides, so it is a quadrilateral.
- 2** Both opposite side pairs are parallel.
- 3** Right angles make a rectangle
- 4** four equal sides make a rhombus.

Answer: **All four categories**



REMEMBER Classify using stated side and angle properties; a more specific shape retains its broader categories.

Read each step and explain why it is valid. The next pages demonstrate the methods in more detail. Then use the large work areas on the numbered practice pages.



GRADE 4 / WORKED METHODS

CLASSIFYING FIGURES BY THEIR PROPERTIES

Read a complete example before trying the matching method.

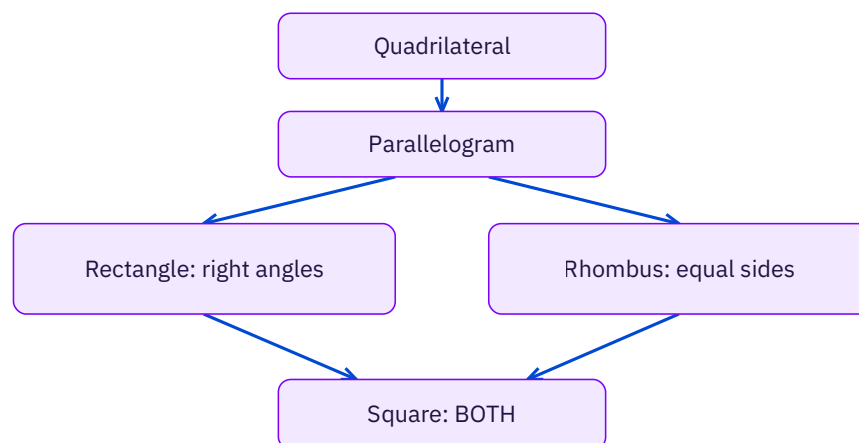


Use these examples as a reference. Keep each quantity and its unit visible. A different valid method is welcome unless a question specifically requests one.

A square inherits several categories

Square → rectangle AND rhombus

1. Four sides make a quadrilateral.
2. Four right angles satisfy the rectangle definition.
3. Four equal sides satisfy the rhombus definition.



Parent → child: every requirement passes down.



GRADE 4 / WORKED METHODS

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Use these examples as a reference. Keep each quantity and its unit visible. A different valid method is welcome unless a question specifically requests one.

Use an angle property for triangles

$60^\circ, 60^\circ, 60^\circ$: acute triangle

1. Compare each angle with 90° .
2. Each angle is below a right angle.
3. All three acute angles make an acute triangle.



GRADE 4 / PRACTICE

CLASSIFYING FIGURES BY THEIR PROPERTIES

Show the method, label your work, and explain the reasoning requested.



Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

◀ Mild

1. Draw a 6-cm by 3-cm rectangle schematically. Mark parallel sides and perpendicular adjacent sides. Is it a square?

My answer / conclusion: _____



GRADE 4 / PRACTICE

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Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

◀ Mild

2. A triangle has one right angle and two unequal acute angles. Classify it by angles and mark the right angle.

My answer / conclusion: _____



GRADE 4 / PRACTICE

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Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

Medium

3. Draw a non-square rhombus. Mark equal sides and parallel pairs. Explain why it need not be a rectangle.

My answer / conclusion: _____

**GRADE 4 / PRACTICE****CLASSIFYING FIGURES BY THEIR PROPERTIES**

Show the method, label your work, and explain the reasoning requested.



Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

Medium**4. Sort triangles with angle sets $(60^\circ, 60^\circ, 60^\circ)$, $(90^\circ, 40^\circ, 50^\circ)$, $(110^\circ, 30^\circ, 40^\circ)$ by angles.**

My answer / conclusion: _____

Medium**5. Using “exactly one pair of parallel sides” for a trapezoid in THIS question, draw one.****Explain whether a parallelogram fits that definition.**

My answer / conclusion: _____



GRADE 4 / PRACTICE

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Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

🔥🔥🔥 Spicy

6. “Every rectangle is a square.” Refute and repair the statement using the definitions.

Grid area for student work.

My answer / conclusion: _____

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Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

Spicy

7. Can a triangle have two right angles? Explain by drawing perpendicular rays at two points of the same baseline.

My answer / conclusion: _____



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Use the worked-method reference when helpful. Use the included method reference. Show the requested method, then check your answer. Reasoning questions need evidence and an explanation.

Extra Spicy

8. A quadrilateral belongs to BOTH the rectangle and rhombus categories. What must it be? Justify both defining properties.

Grid area for student response.

My answer / conclusion: _____