



GRADE 4 / WATCH MR DJ SOLVE

LINES OF SYMMETRY

Start with the same example used in the lesson slides.



WATCH MR DJ SOLVE

Draw a non-square rectangle. Draw EVERY line of symmetry. Explain using reflection or a fold.

- 1 A vertical center line matches left and right halves.
- 2 A horizontal center line matches top and bottom.
- 3 A diagonal of a non-square rectangle does not match the halves.

Answer: 2 lines: through midpoints of opposite sides



REMEMBER A symmetry line reflects a whole shape onto itself; matching points have equal perpendicular distances.

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**LINES OF SYMMETRY**

Read a complete example before trying the matching method.

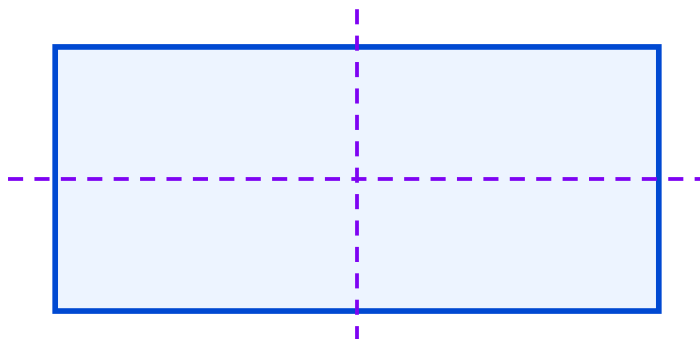


Use these examples as a reference. Keep each quantity and its unit visible. A different valid method is welcome unless a question specifically requests one.

Test a whole shape by reflection**A non-square rectangle has 2 symmetry lines**

1. Draw the vertical and horizontal center lines.
2. Reflect each corner to a matching corner.
3. A diagonal fails because unequal adjacent side lengths do not align.

Non-square rectangle: two mirror lines



The diagonals do not fold onto matching boundaries.



GRADE 4 / WORKED METHODS

LINES OF SYMMETRY

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.

Reflect each vertex before joining

Three squares left → three squares right

1. Count perpendicular squares from the mirror.
2. Place a partner on the other side at the same height.
3. Repeat for every vertex, then join in the same order.

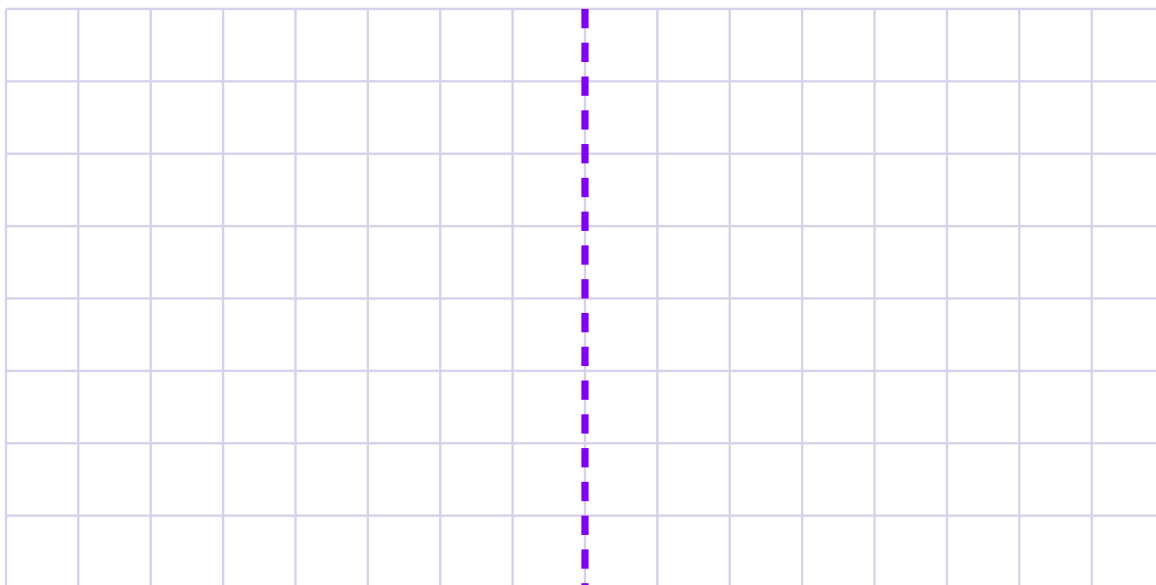
GRADE 4 / VERTICAL MIRROR GRID

LINES OF SYMMETRY

Use a pencil and ruler. Keep the given unit intervals and mirror directions.



Equal perpendicular distances across a mirror



Draw and reflect one vertex at a time.

Use the large work areas in the packet for your answers. This reference/tool may be reused as needed.

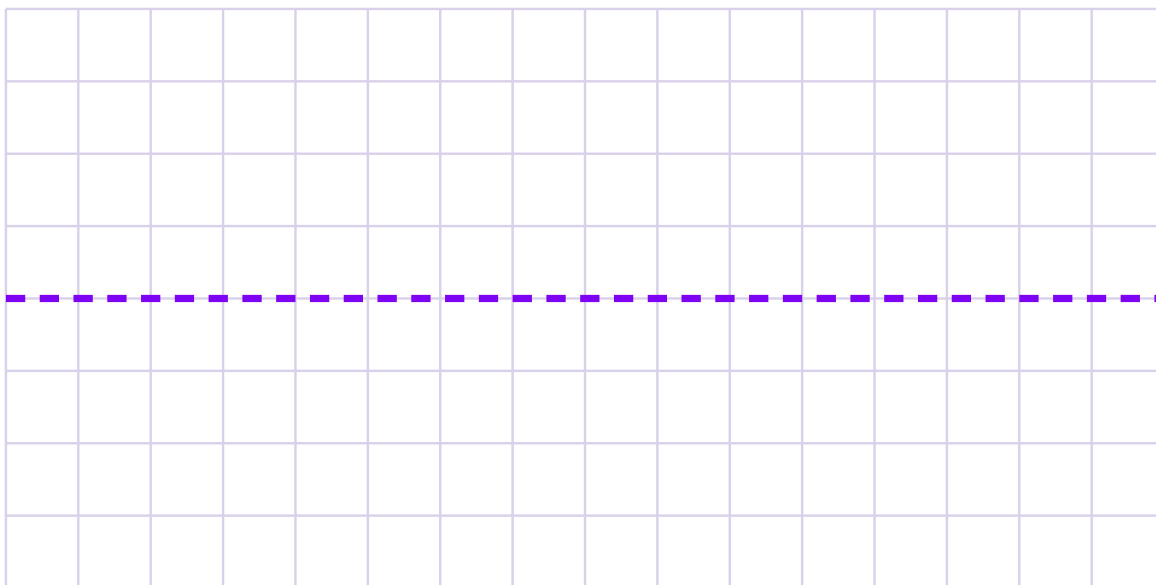
GRADE 4 / HORIZONTAL MIRROR GRID

LINES OF SYMMETRY

Use a pencil and ruler. Keep the given unit intervals and mirror directions.



Equal perpendicular distances across a mirror



Draw and reflect one vertex at a time.

Use the large work areas in the packet for your answers. This reference/tool may be reused as needed.



GRADE 4 / PRACTICE

Lines of Symmetry

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 square and show every line of symmetry. Explain why its diagonals work.

My answer / conclusion: _____



GRADE 4 / PRACTICE

LINES OF SYMMETRY

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

2. Draw a non-equilateral isosceles triangle and its line of symmetry. Mark the matching equal sides.

My answer / conclusion: _____



GRADE 4 / PRACTICE

Lines of Symmetry

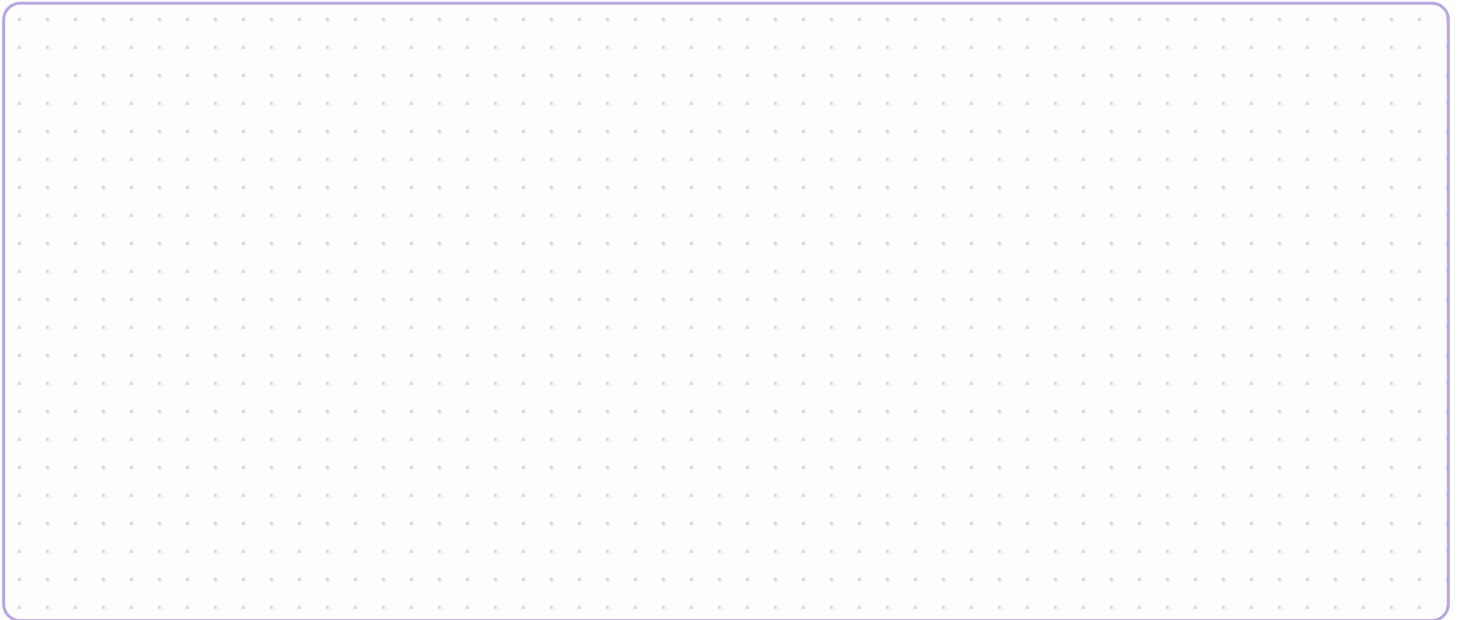
Show the method, label your work, and explain the reasoning requested.



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

3. Draw a vertical mirror line and a point 3 grid squares to its left. Draw its reflection and explain the location.



My answer / conclusion: _____



GRADE 4 / PRACTICE

Lines of Symmetry

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. Draw a triangle entirely to one side of a vertical mirror. Reflect its three vertices and join them. Label matching distances.

My answer / conclusion: _____



GRADE 4 / PRACTICE

LINES OF SYMMETRY

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

5. A point lies ON a mirror line. Where is its reflected point? Draw and explain.

My answer / conclusion: _____

🔊🔊🔊 Spicy

6. Does every diagonal of a quadrilateral have to be a line of symmetry? Give a counterexample.

My answer / conclusion: _____



GRADE 4 / PRACTICE

LINES OF SYMMETRY

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.

🔥🔥🔥 Spicy

7. Can a shape have rotational symmetry but no line of symmetry? Draw a non-rectangular, non-rhombus parallelogram to investigate.

My answer / conclusion: _____



GRADE 4 / PRACTICE

LINES OF SYMMETRY

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.

Extra Spicy

8. Draw an asymmetric half-shape on one side of a mirror, then complete it by reflection. Explain why the full shape has at least one symmetry line.

My answer / conclusion: _____