Grade 2 Mathematics: Geometry and Transformations

Free sample lesson

Ontario curriculum: Mathematics (2020), Strand E: Spatial Sense (E1, Geometric and Spatial Reasoning). 15 days.

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This is Lesson 1 of 11 from the full unit, exactly as it appears in the Teacher Guide, followed by the student worksheet. The full unit is at unitplans.ca.

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Lesson 1: Sides and corners

1 day · about 43 minutes · E1.1

> **Learning goal**
>
> - We are learning to count the sides and corners of shapes.

> **Success criteria**
>
> - I can count the sides of a shape.
> - I can count the corners of a shape.

Materials

- Cut-out shapes (triangles, squares, rectangles, pentagons, hexagons)
- Counters
- Masking tape for floor shapes

What students do with their hands

Students walk the edge of a floor shape with a finger, counting each side, and put a counter on every corner.

Minds On (8 min)

1. Hold up a triangle and a circle. Ask: "How are these different?"
2. Run a finger along a straight side. Say: a side is a straight edge.

Action (25 min)

1. Show a corner as the spot where two sides meet. Put a counter on each corner.
2. Partners trace the sides of a cut-out shape, counting each one, then count the corners.

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3. Students notice that the number of sides and corners is always the same for a flat shape with straight sides.
4. Complete the worksheet.

Consolidation (10 min)

1. Hold up shapes turned in different directions. Students show the number of sides with their fingers.
2. Exit: "How many sides does a triangle have?"

Questions to ask

- How do you know you counted every side?
- Where is the corner?

Watch for

- Some students count a side twice. Have them mark the starting side with a counter.
- Some think a turned triangle is a different shape. Turn the shape and count again.

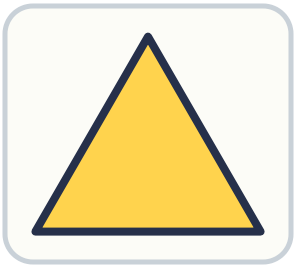
Differentiation

Support	Extend
Put a dot of sticker on every corner before counting.	Find a shape with more sides than a pentagon.

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Answer key: Count sides and corners

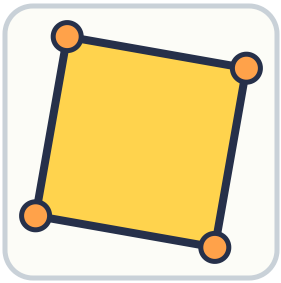
1. How many sides?



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> **Answer:** 3

2. How many corners?



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> **Answer:** 4

3. How many sides?

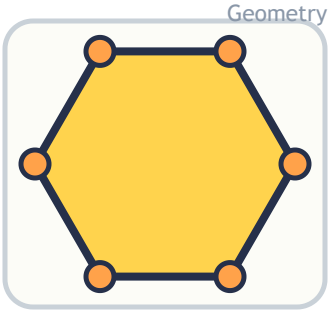


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> **Answer:** 5

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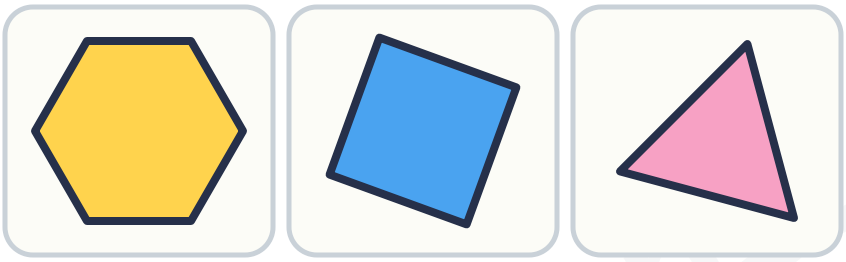
4. How many corners?



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> **Answer:** 6

5. Circle the shape with 4 sides.



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> **Answer:** Shape B

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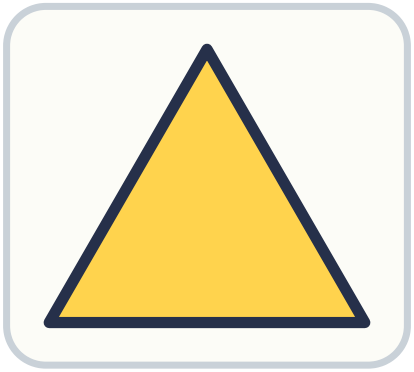
Student worksheet: Count sides and corners

Success criteria

- I can count the sides of a shape.
- I can count the corners of a shape.

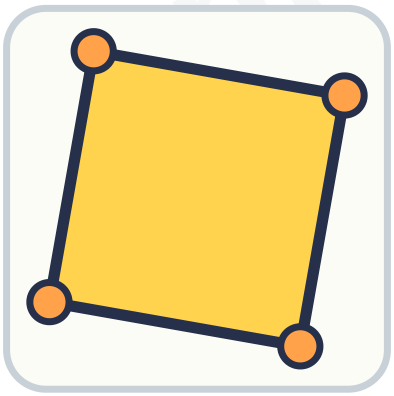
Count. Write the number in the box.

1 How many sides?



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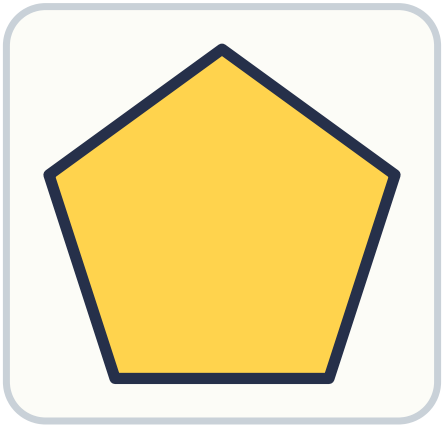
2 How many corners?



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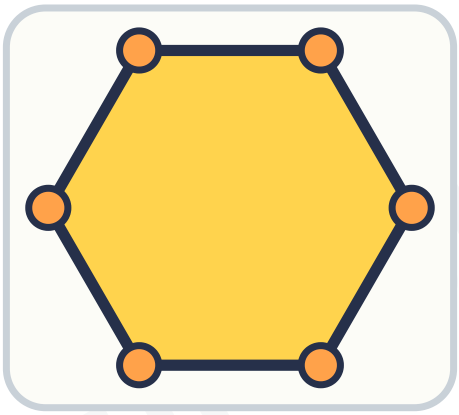
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3 How many sides?



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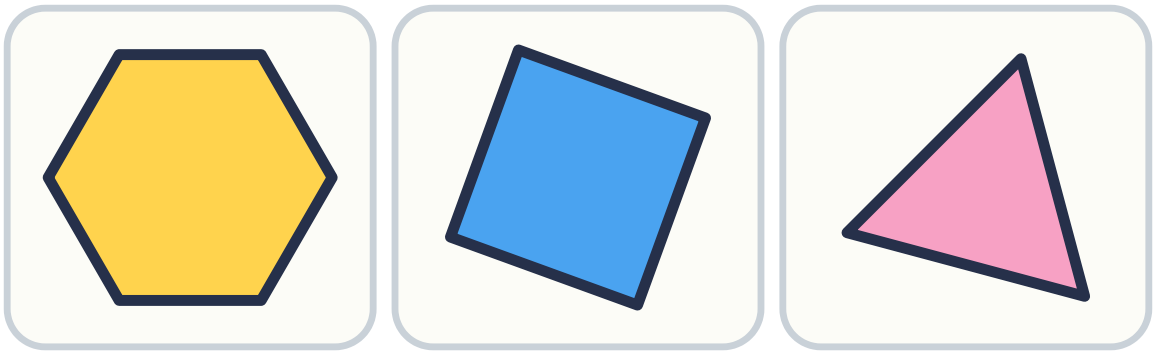
4 How many corners?



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5 Circle the shape with 4 sides.



A B C

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