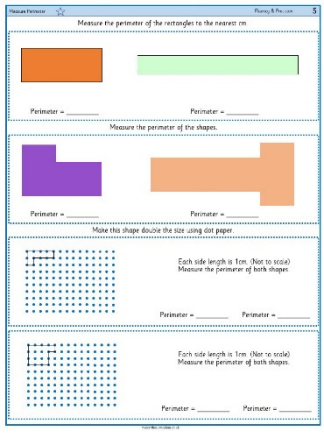
Lesson 2 – Measurement: Perimeter and Area - Measure Perimeter

NC Objective: Measure and calculate the perimeter of composite rectilinear shapes in cm and m	Resources needed: Differentiated Sheets Teaching Slides	Side lengths, perimeter, composite rectilinear shapes

Children measure the perimeter of rectilinear shapes from diagrams without grids.
They will recap measurement skills and recognise that they need to use their ruler accurately in order to get the correct answer.
They could consider alternative methods when dealing with rectangles e.g. l + w + l + w or (l + w) × 2.

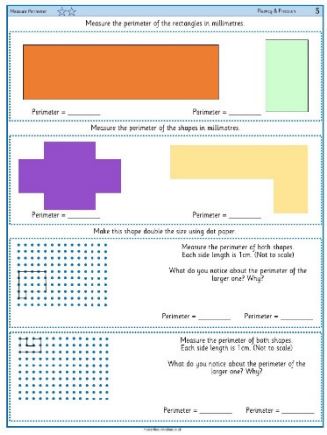
Key Questions:
What is perimeter of a shape? What's the same/different about these shapes?
Do we need to measure every side? Once we have measured each side, how do we calculate the perimeter?

★ Working Towards



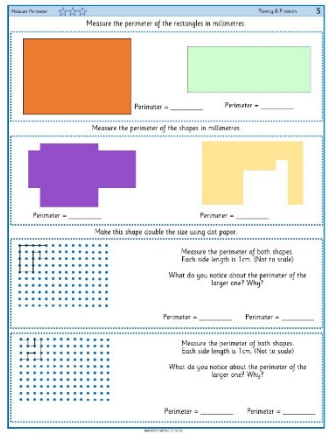
Children continue using a ruler to measure the perimeter of simple shapes. Children measure to the nearest cm.

★★ Working Within



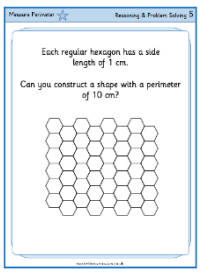
Children continue using a ruler to measure the perimeter of simple shapes. Children measure in mm.

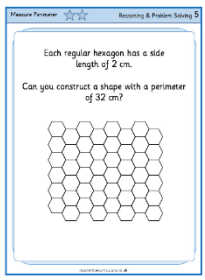
★★★ Greater Depth

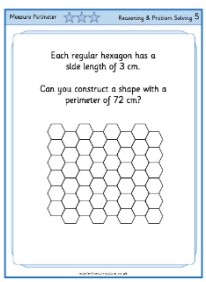


Children continue using a ruler to measure the perimeter of more complex shapes. Children measure in mm.

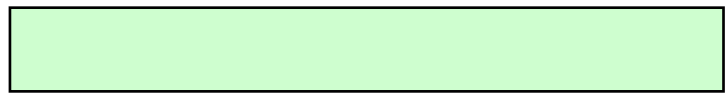
Reasoning & Problem Solving







Measure the perimeter of the rectangles to the nearest cm.

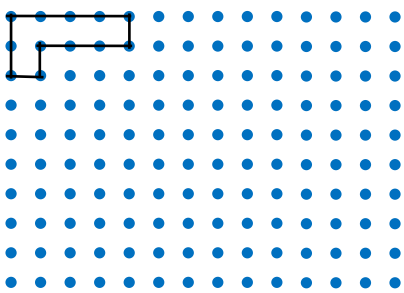


Perimeter = _____ Perimeter = _____

Measure the perimeter of the shapes.

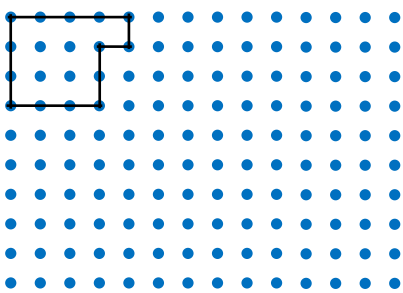
Perimeter = _____ Perimeter = _____

Make this shape double the size using dot paper.



Each side length is 1cm. (Not to scale)
Measure the perimeter of both shapes.

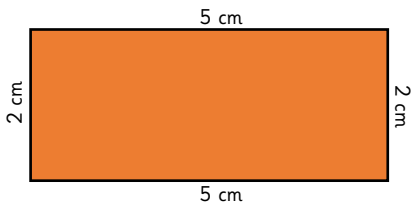
Perimeter = _____ Perimeter = _____



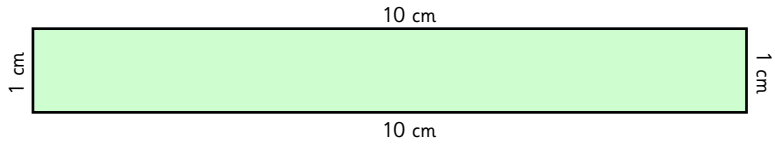
Each side length is 1cm. (Not to scale)
Measure the perimeter of both shapes.

Perimeter = _____ Perimeter = _____

Measure the perimeter of the rectangles to the nearest cm.

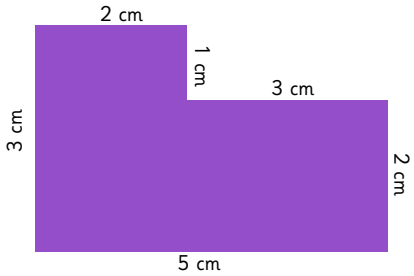


Perimeter = 14 cm

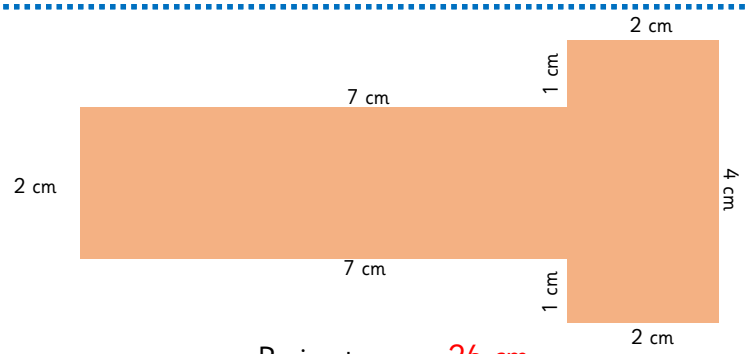


Perimeter = 22 cm

Measure the perimeter of the shapes.

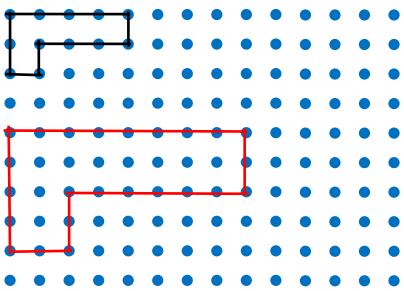


Perimeter = 16 cm



Perimeter = 26 cm

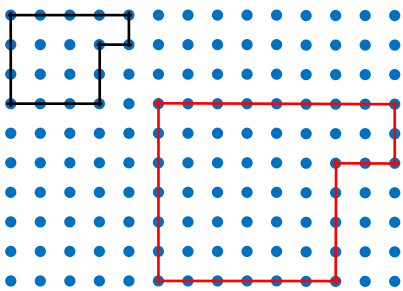
Make this shape double the size using dot paper.



Each side length is 1cm. (Not to scale)
Measure the perimeter of both shapes.

Perimeter = 12 cm

Perimeter = 24 cm

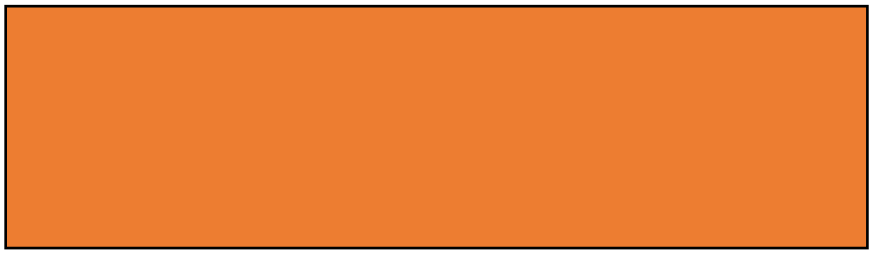


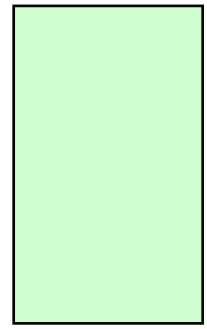
Each side length is 1cm. (Not to scale)
Measure the perimeter of both shapes.

Perimeter = 14 cm

Perimeter = 28 cm

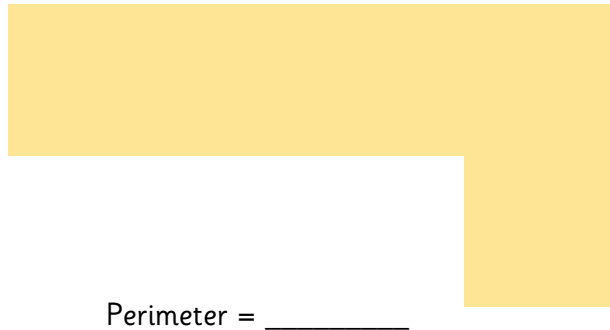
Measure the perimeter of the rectangles in millimetres.





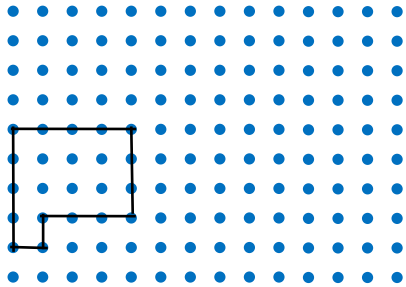
Perimeter = _____ Perimeter = _____

Measure the perimeter of the shapes in millimetres.



Perimeter = _____ Perimeter = _____

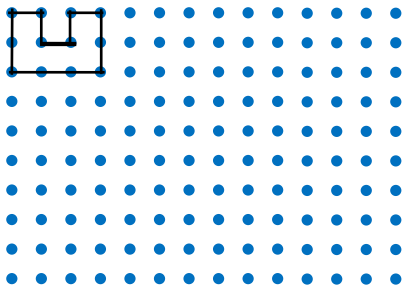
Make this shape double the size using dot paper.



Measure the perimeter of both shapes.
Each side length is 1cm. (Not to scale)

What do you notice about the perimeter of the larger one? Why?

Perimeter = _____ Perimeter = _____

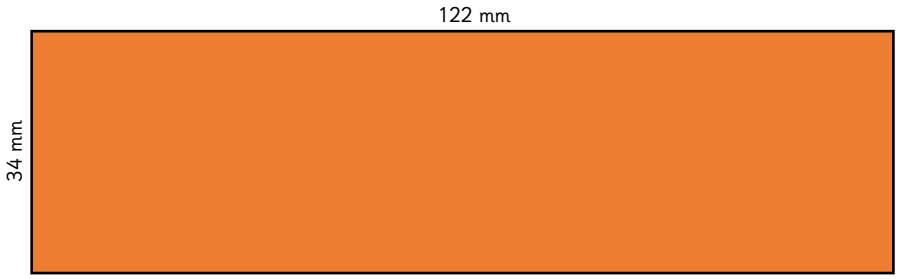


Measure the perimeter of both shapes.
Each side length is 1cm. (Not to scale)

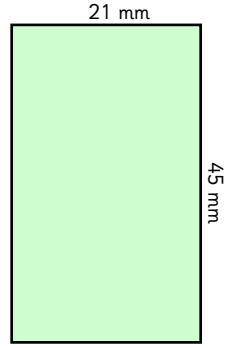
What do you notice about the perimeter of the larger one? Why?

Perimeter = _____ Perimeter = _____

Measure the perimeter of the rectangles in millimetres.

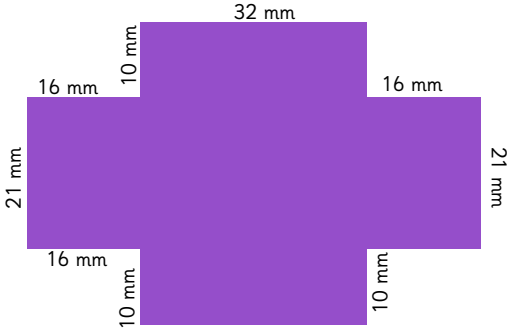


Perimeter = 312 mm

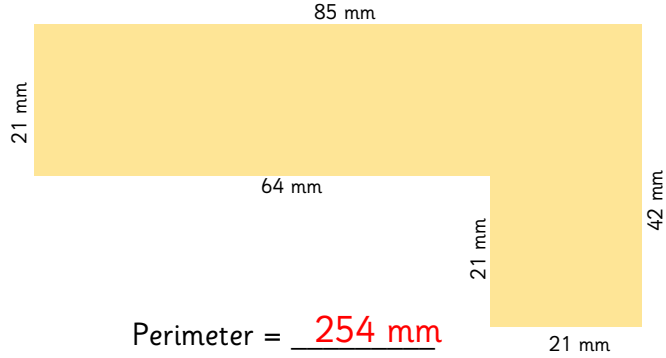


Perimeter = 132 mm

Measure the perimeter of the shapes in millimetres.

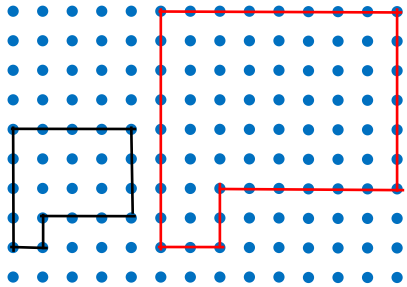


Perimeter = 210 mm



Perimeter = 254 mm

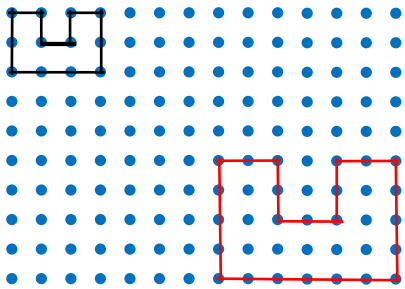
Make this shape double the size using dot paper.



Measure the perimeter of both shapes.
Each side length is 1cm. (Not to scale)

What do you notice about the perimeter of the larger one? Why?

Perimeter = 16 cm Perimeter = 32 cm

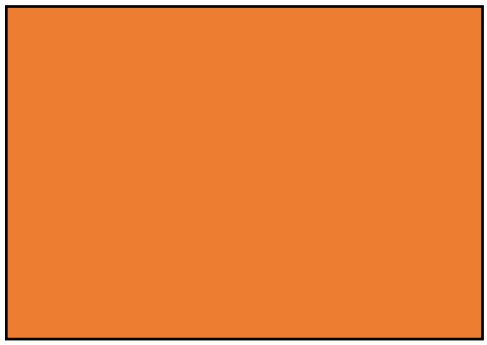


Measure the perimeter of both shapes.
Each side length is 1cm. (Not to scale)

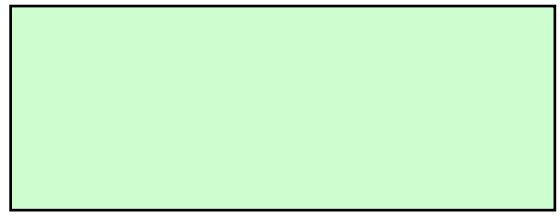
What do you notice about the perimeter of the larger one? Why?

Perimeter = 12 cm Perimeter = 24 cm

Measure the perimeter of the rectangles in millimetres.



Perimeter = _____



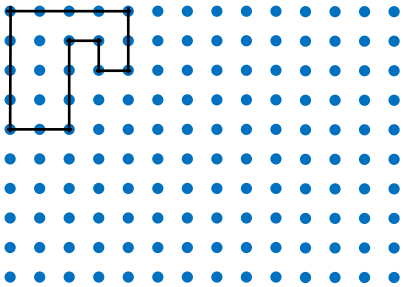
Perimeter = _____

Measure the perimeter of the shapes in millimetres.

Perimeter = _____

Perimeter = _____

Make this shape double the size using dot paper.



Measure the perimeter of both shapes.
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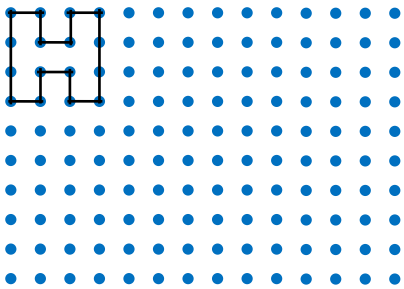
What do you notice about the perimeter of the larger one? Why?

Perimeter = _____ Perimeter = _____



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What do you notice about the perimeter of the larger one? Why?

Perimeter = _____ Perimeter = _____

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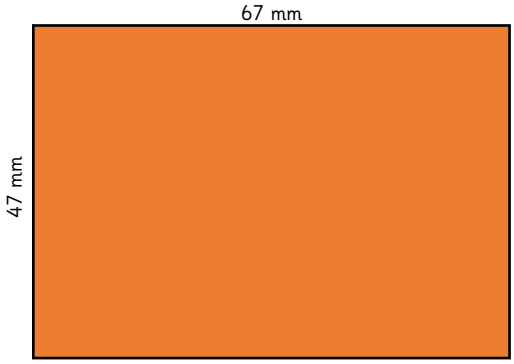
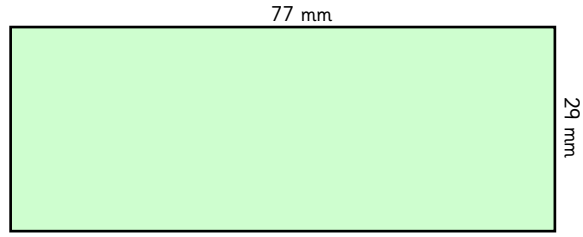
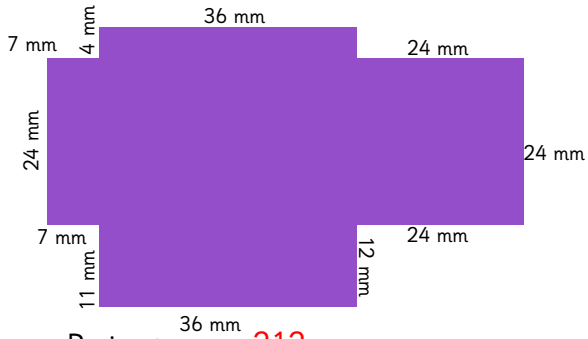


Perimeter = 228 mm

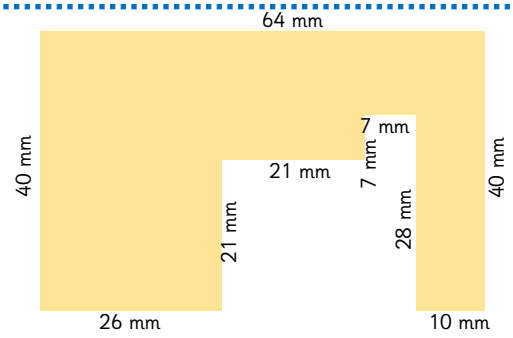


Perimeter = 212 mm

Measure the perimeter of the shapes in millimetres.

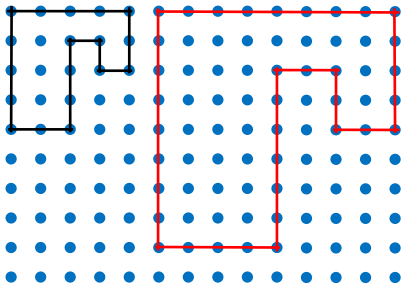


Perimeter = 212 mm



Perimeter = 264 mm

Make this shape double the size using dot paper.

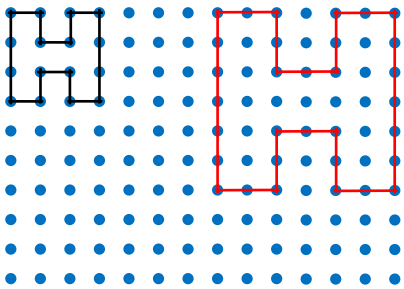


Measure the perimeter of both shapes.
Each side length is 1cm. (Not to scale)

What do you notice about the perimeter of the larger one? Why?

Perimeter = 18 cm

Perimeter = 36 cm



Measure the perimeter of both shapes.
Each side length is 1cm. (Not to scale)

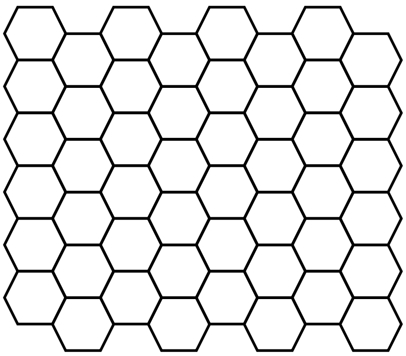
What do you notice about the perimeter of the larger one? Why?

Perimeter = 16 cm

Perimeter = 32 cm

Each regular hexagon has a side length of 1 cm.

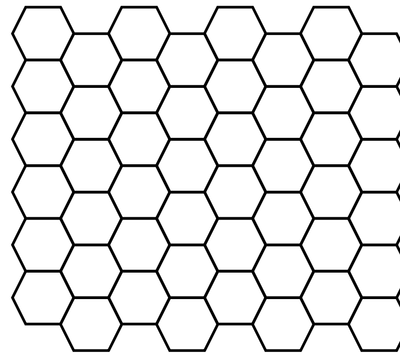
Can you construct a shape with a perimeter of 10 cm?



Measure Perimeter Reasoning & Problem Solving 5

Each regular hexagon has a side length of 1 cm.

Can you construct a shape with a perimeter of 10 cm?



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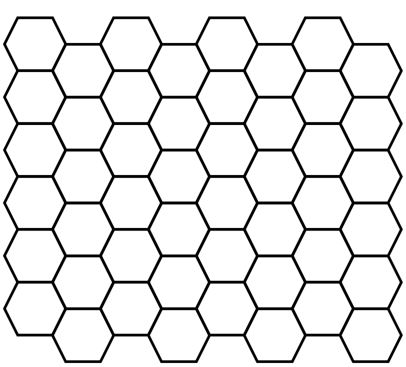

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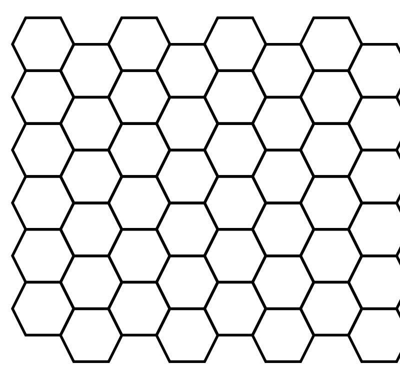

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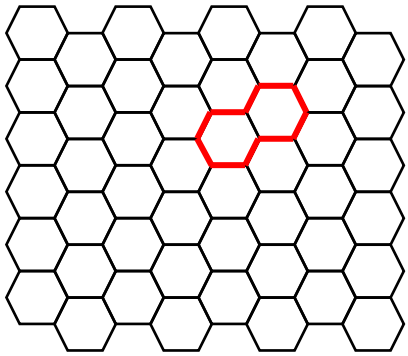
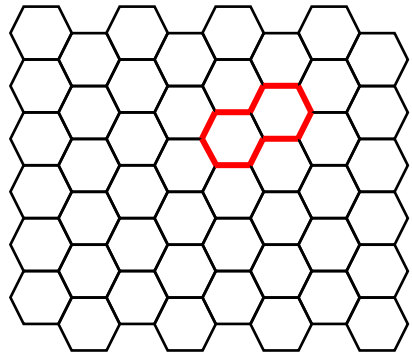


Possible answer: Discuss how many sides the shape must have with the children. Encourage their reasoning that there must be 10 1-cm sides to make a total perimeter of 10 cm.

Measure Perimeter Answers Reasoning & Problem Solving 5

Each regular hexagon has a side length of 1 cm.

Can you construct a shape with a perimeter of 10 cm?



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Measure Perimeter Answers Reasoning & Problem Solving 5

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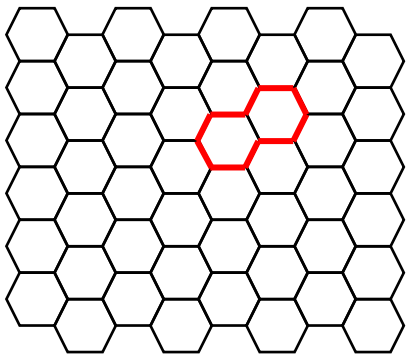

Possible answer: Discuss how many sides the shape must have with the children. Encourage their reasoning that there must be 10 1-cm sides to make a total perimeter of 10 cm.

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Measure Perimeter Answers Reasoning & Problem Solving 5

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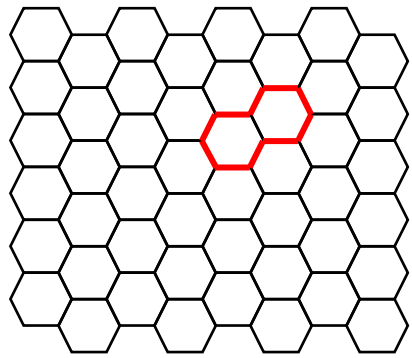

Possible answer: Discuss how many sides the shape must have with the children. Encourage their reasoning that there must be 10 1-cm sides to make a total perimeter of 10 cm.

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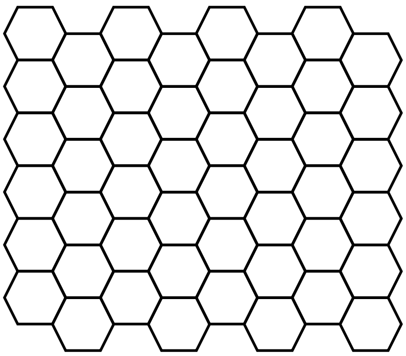
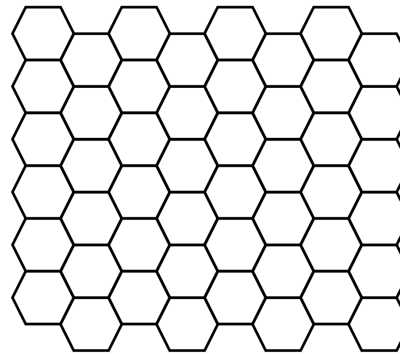
Each regular hexagon has a side length of 2 cm.

Can you construct a shape with a perimeter of 32 cm?



Measure Perimeter Reasoning & Problem Solving 5

Each regular hexagon has a side length of 2 cm.
Can you construct a shape with a perimeter of 32 cm?



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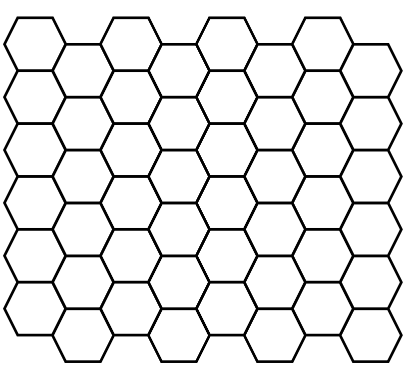
Measure Perimeter Reasoning & Problem Solving 5

Each regular hexagon has a side length of 2 cm.
Can you construct a shape with a perimeter of 32 cm?



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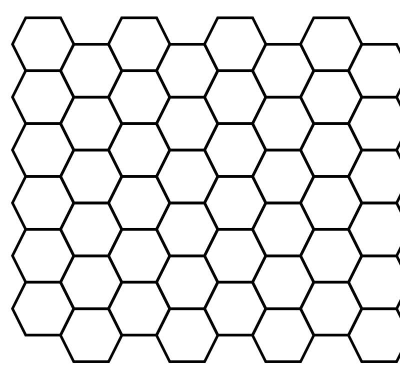
Measure Perimeter Reasoning & Problem Solving 5

Each regular hexagon has a side length of 2 cm.
Can you construct a shape with a perimeter of 32 cm?



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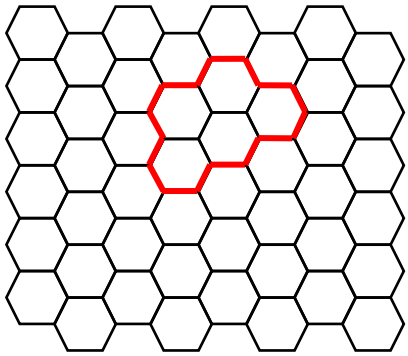
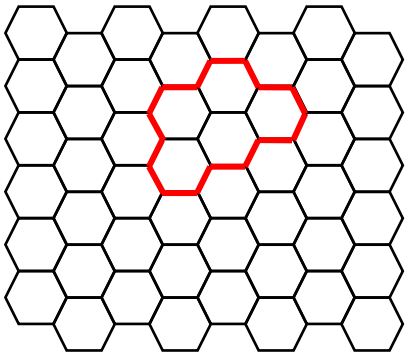
Each regular hexagon has a side length of 2 cm.
Can you construct a shape with a perimeter of 32 cm?



Possible answer: Discuss how many sides the shape must have with the children. Encourage their reasoning that there must be 16 2-cm sides to make a total perimeter of 32 cm.

Measure Perimeter Answers Reasoning & Problem Solving 5

Each regular hexagon has a side length of 2 cm.
Can you construct a shape with a perimeter of 32 cm?



Possible answer: Discuss how many sides the shape must have with the children. Encourage their reasoning that there must be 16 2-cm sides to make a total perimeter of 32 cm.

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Measure Perimeter Answers Reasoning & Problem Solving 5

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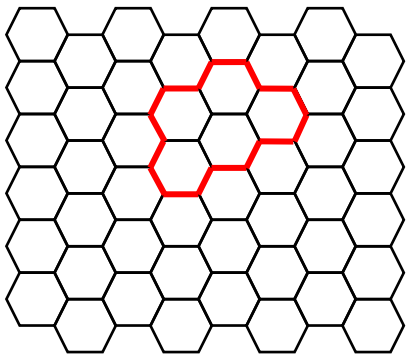

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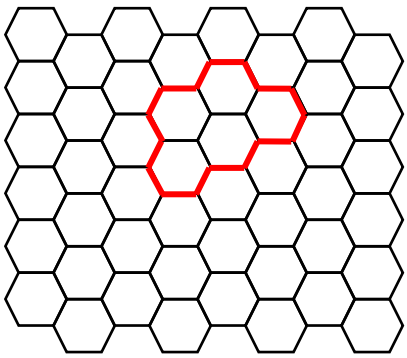

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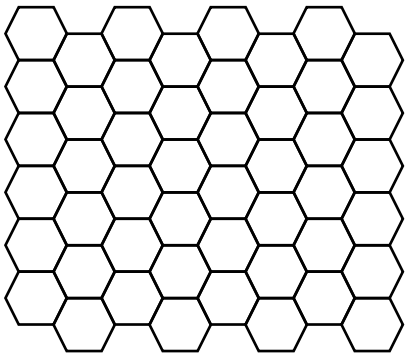
Each regular hexagon has a side length of 3 cm.

Can you construct a shape with a perimeter of 72 cm?



Measure Perimeter ☆☆☆ Reasoning & Problem Solving 5

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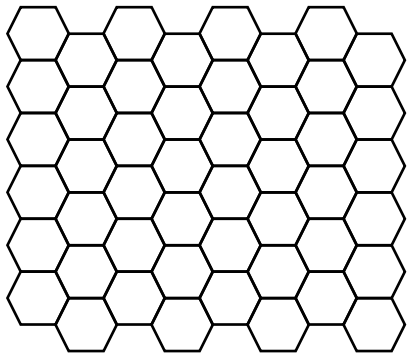

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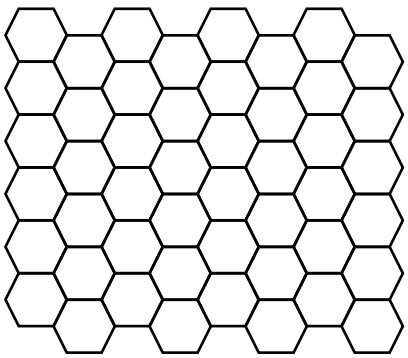

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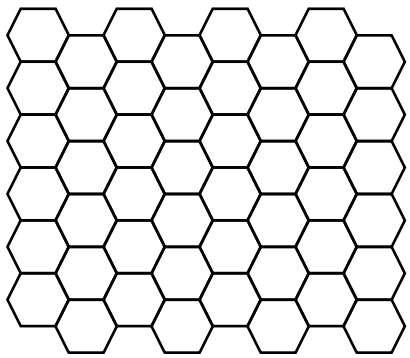

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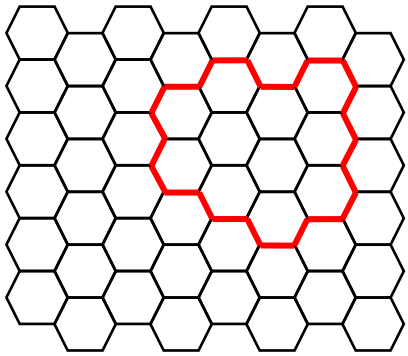

Possible answer: Discuss how many sides the shape must have with the children. Encourage their reasoning that there must be 24 3-cm sides to make a total perimeter of 72 cm.

Measure Perimeter ☆☆☆ Reasoning & Problem Solving 5

Answers

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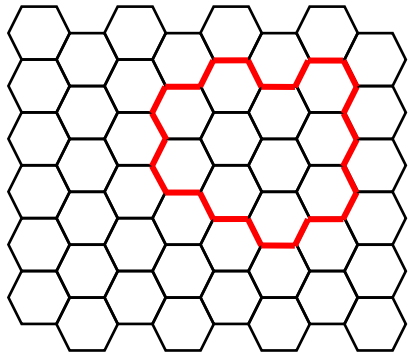

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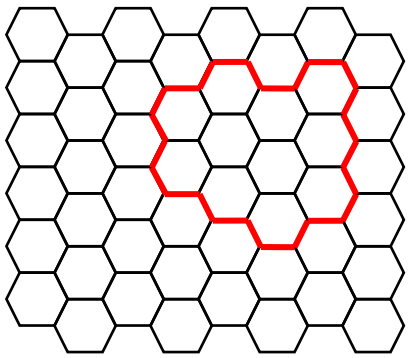

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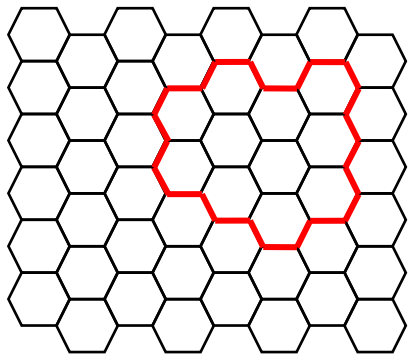

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