#LIFEworkbalance

We have started a #LIFEworkbalance campaign and we need your help to complete our LIFE/work balance survey.

We hope to publish the results soon, so please give 15 minutes of your time to help us get a true picture of school life.

Want to be a part of this campaign? Take the survey on our website and share it with your colleagues!

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Year 5 – Autumn Block 5 – Perimeter and Area

Teaching note: we recommend printing some slides for the children to measure alongside the delivery of this presentation. Slides have been added to demonstrate how to complete this activity.

About This Resource:

This PowerPoint has been designed to support your teaching of this small step. It includes a starter activity and an example of each question from the Varied Fluency and Reasoning and Problem Solving resources also provided in this pack. You can choose to work through all examples provided or a selection of them depending on the needs of your class.

National Curriculum Objectives:

Mathematics Year 5: (5M7a) Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres

More Year 5 Perimeter and Area resources.

Did you like this resource? Don't forget to review it on our website.

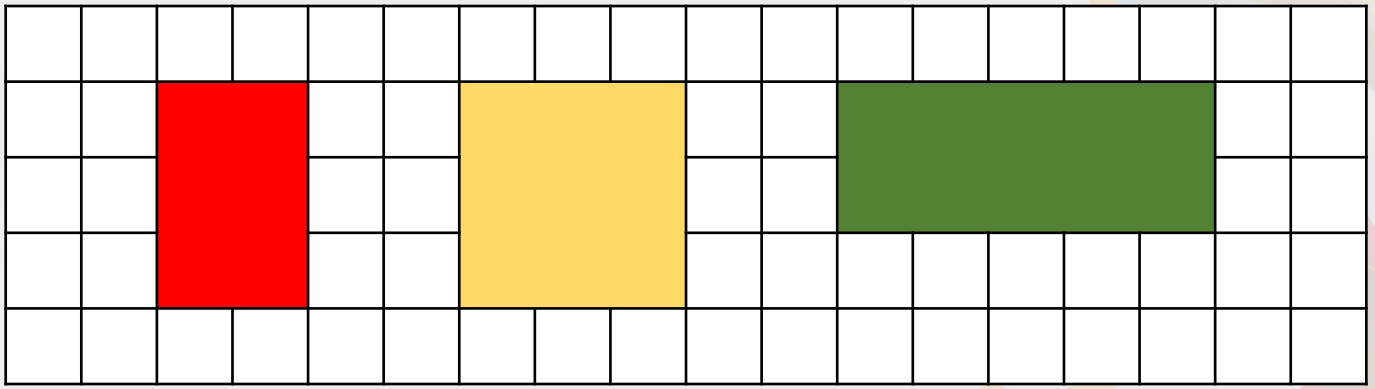
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Step 1: Measure Perimeter

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Introduction

Match the shape to its perimeter.

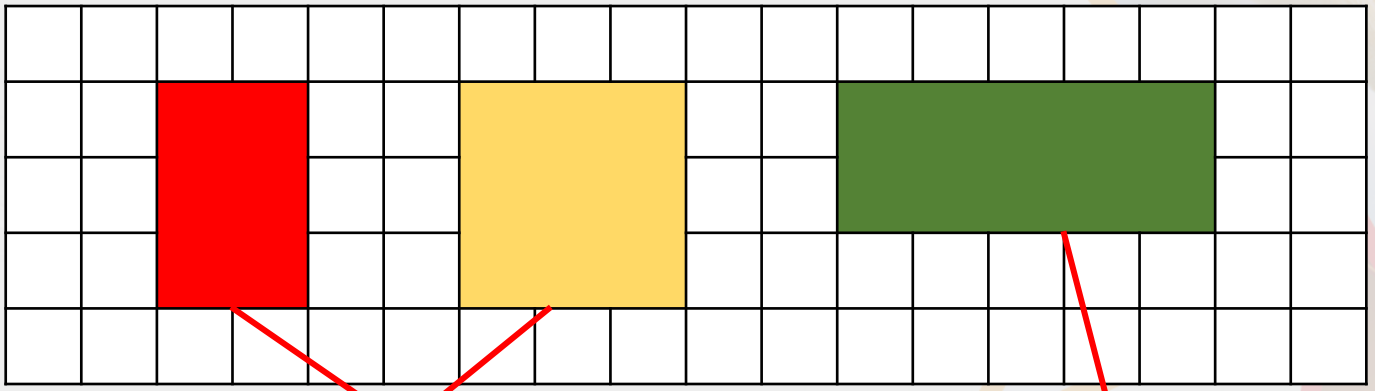


12cm	10cm	14cm

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Introduction

Match the shape to its perimeter.



12cm

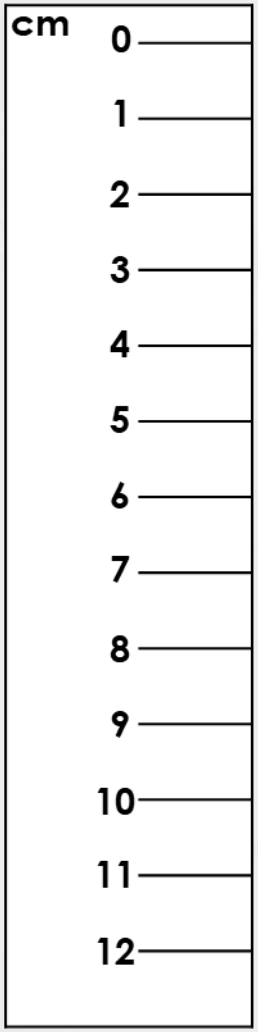
10cm

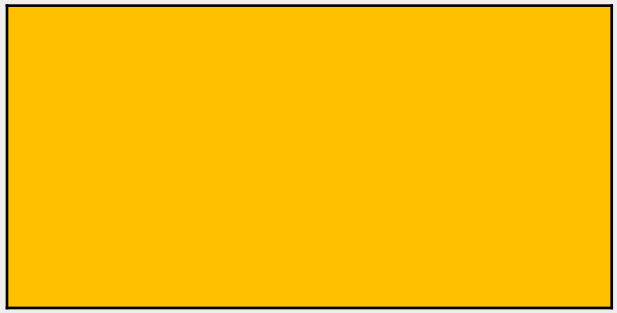
14cm

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Varied Fluency 1

Find the perimeter of this shape.



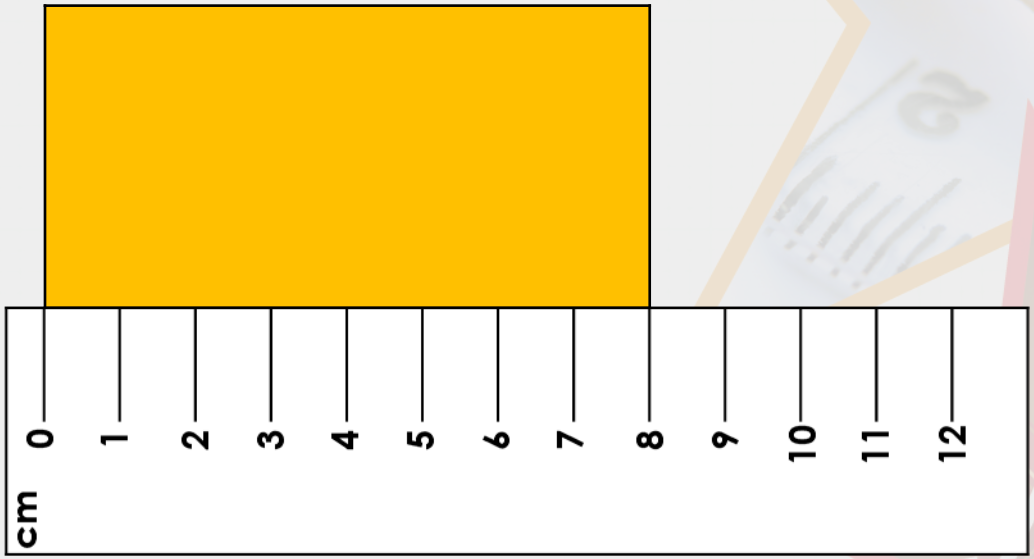


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Varied Fluency 1

Find the perimeter of this shape.

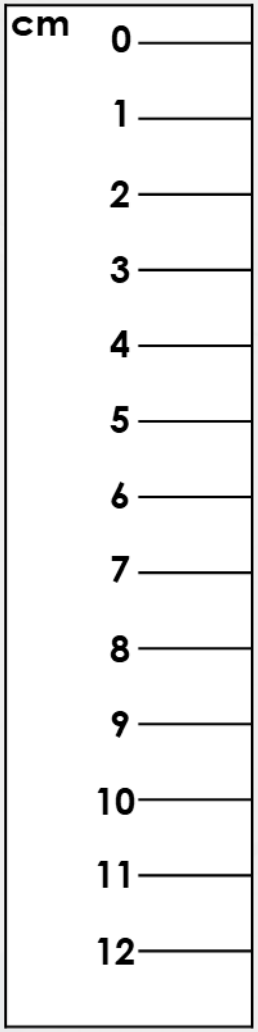
Measure each side with a ruler.

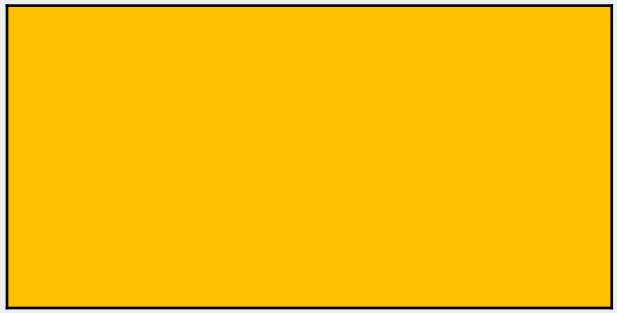


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Varied Fluency 1

Find the perimeter of this shape.



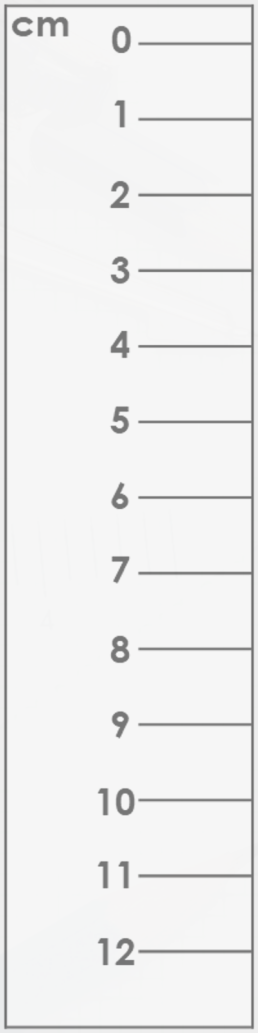


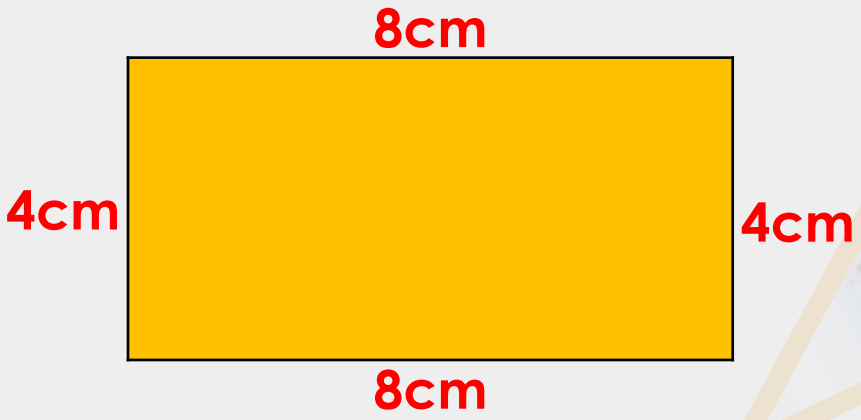
The side measured was 8cm.
Now measure any other sides needed using the same method.

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Varied Fluency 1

Find the perimeter of this shape.



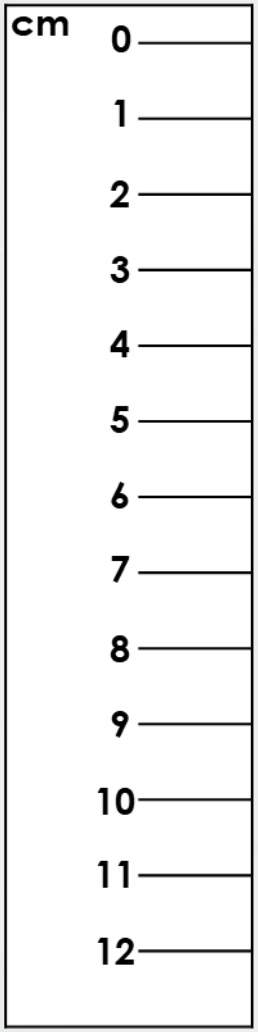


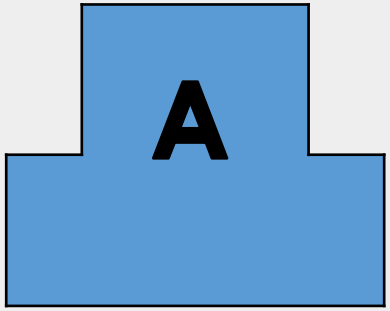
8cm + 4cm + 8cm + 4cm = 24cm

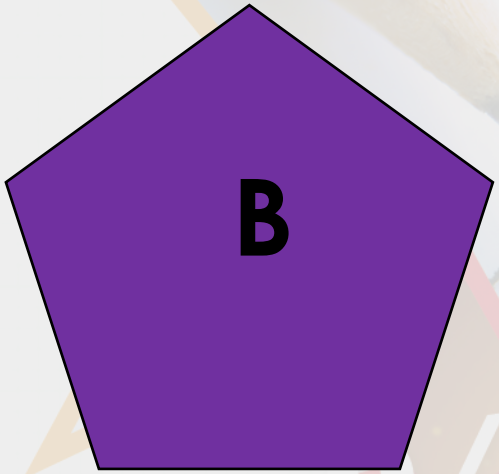
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Varied Fluency 2

Match the shape to its perimeter.



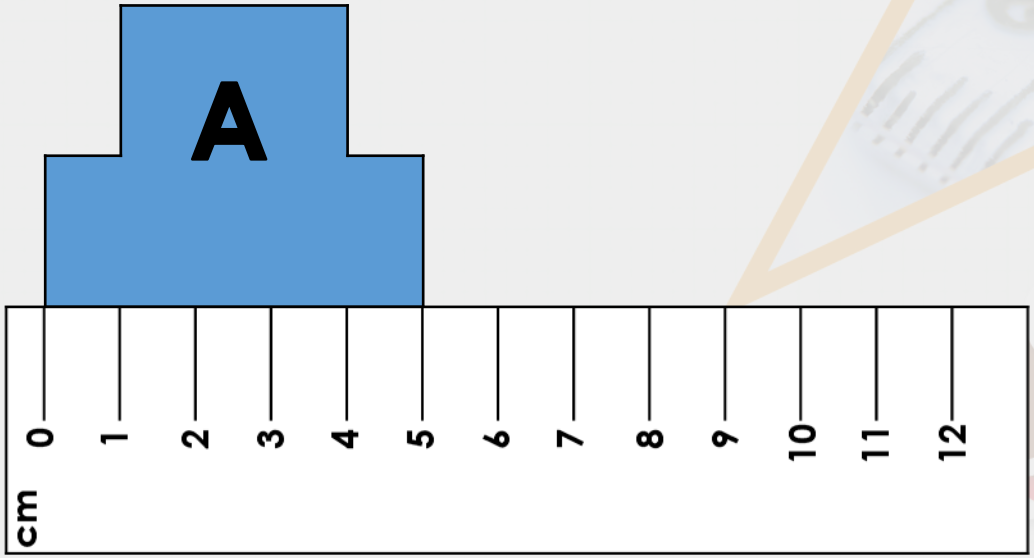




20cm	22cm	18cm

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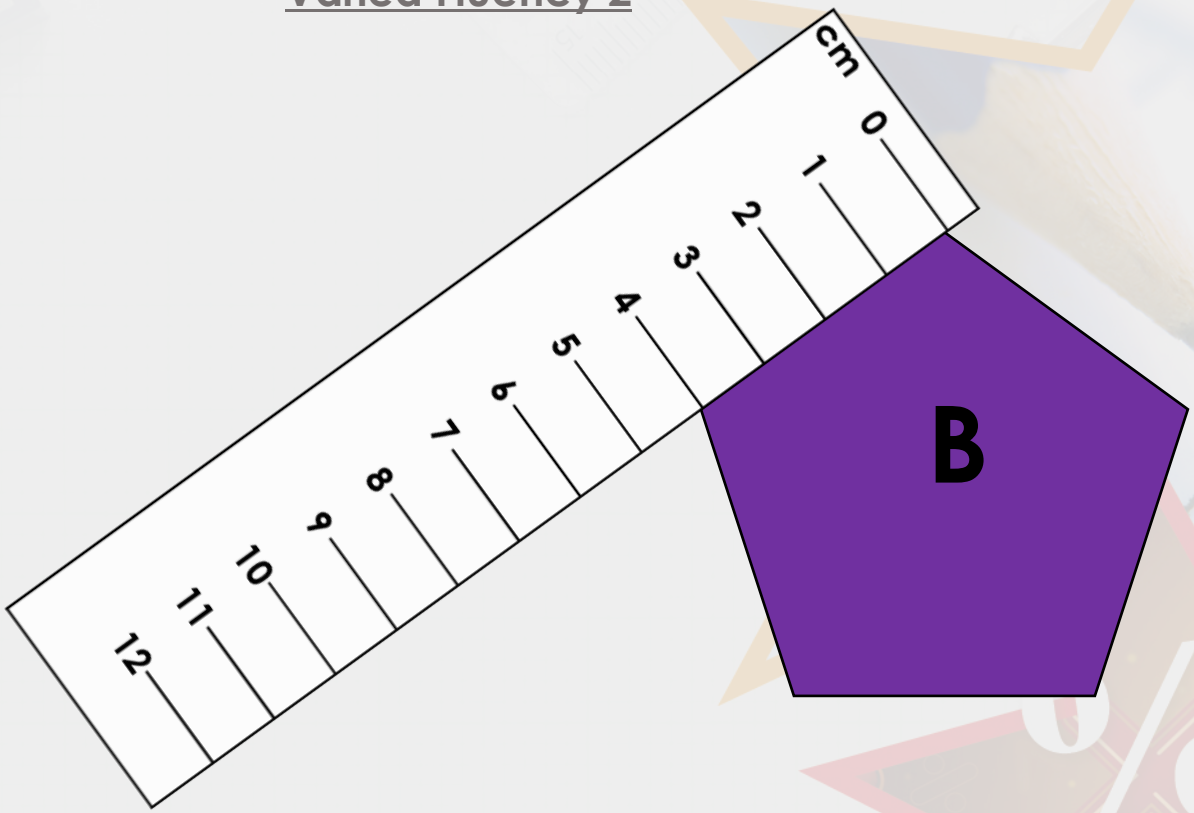
Varied Fluency 2



Measure each side with a ruler.

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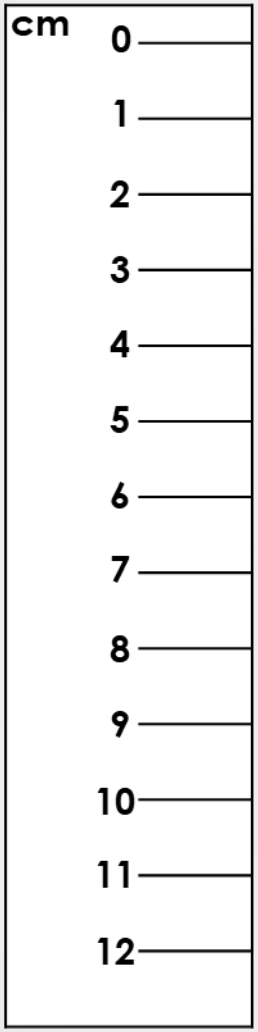
Varied Fluency 2

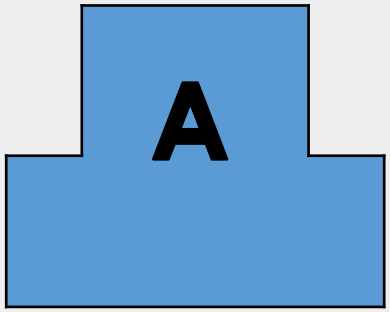


Measure each side with a ruler.

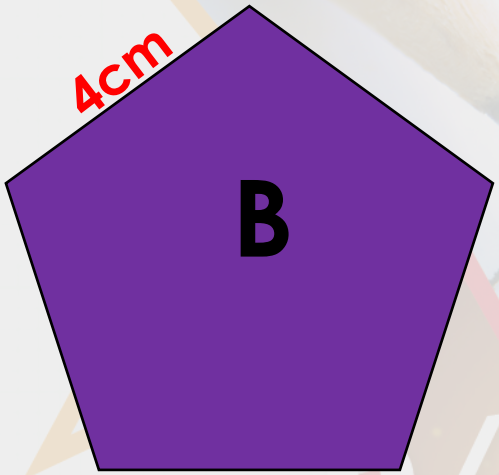
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Match the shape to its perimeter.





5cm



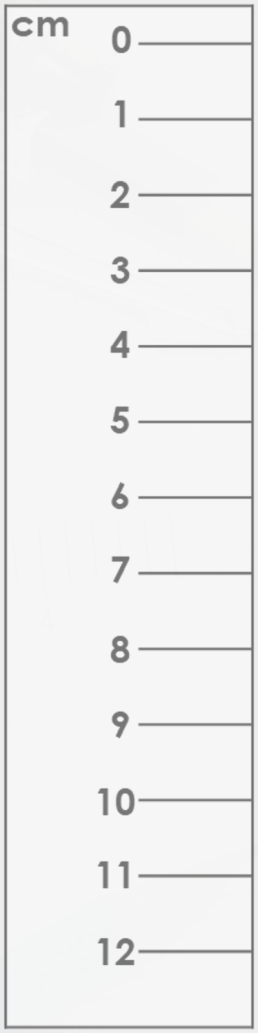
The sides measured were 5cm on shape A and 4cm on shape B.
Now measure any other sides needed using the same method.

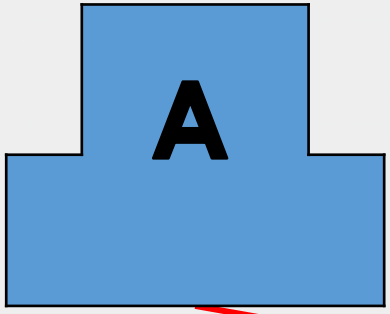
20cm	22cm	18cm

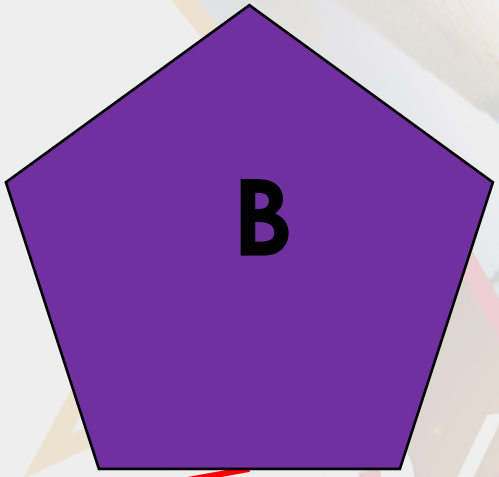
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Varied Fluency 2

Match the shape to its perimeter.







20cm	22cm	18cm

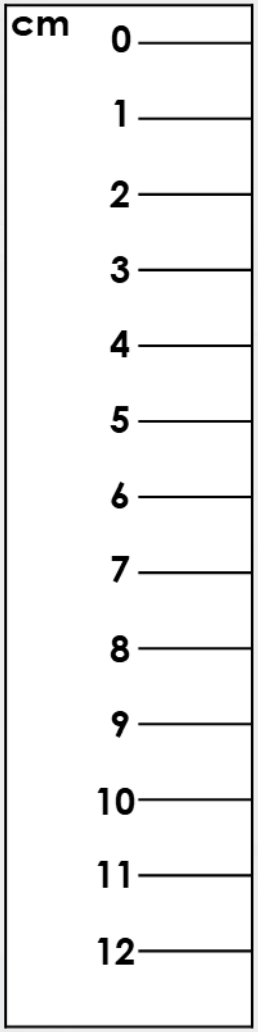
Shape A: 5cm + 2cm + 1cm + 2cm + 3cm + 2cm + 1 cm = 2cm = 18cm

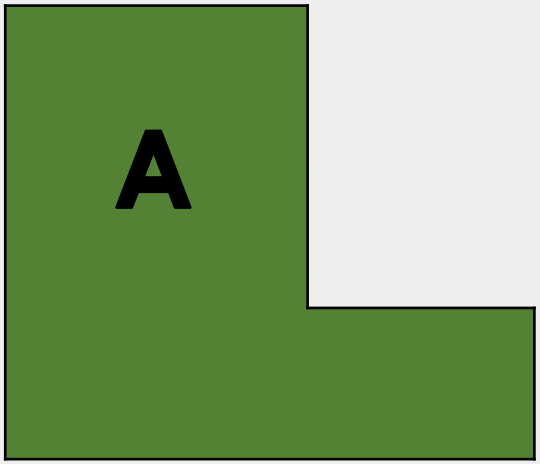
Shape B: 4cm + 4cm + 4cm + 4 cm + 4cm = 20cm

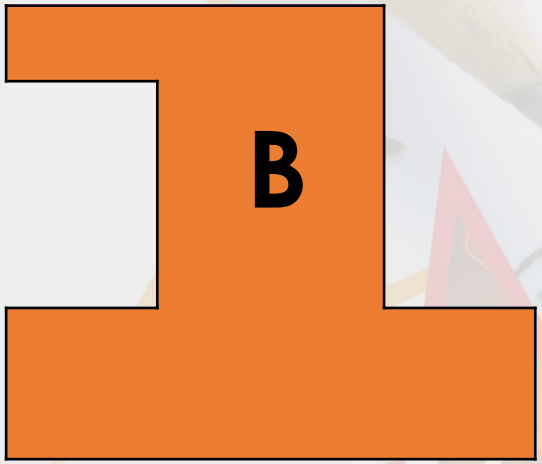
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Varied Fluency 3

Which shape has the longest perimeter?



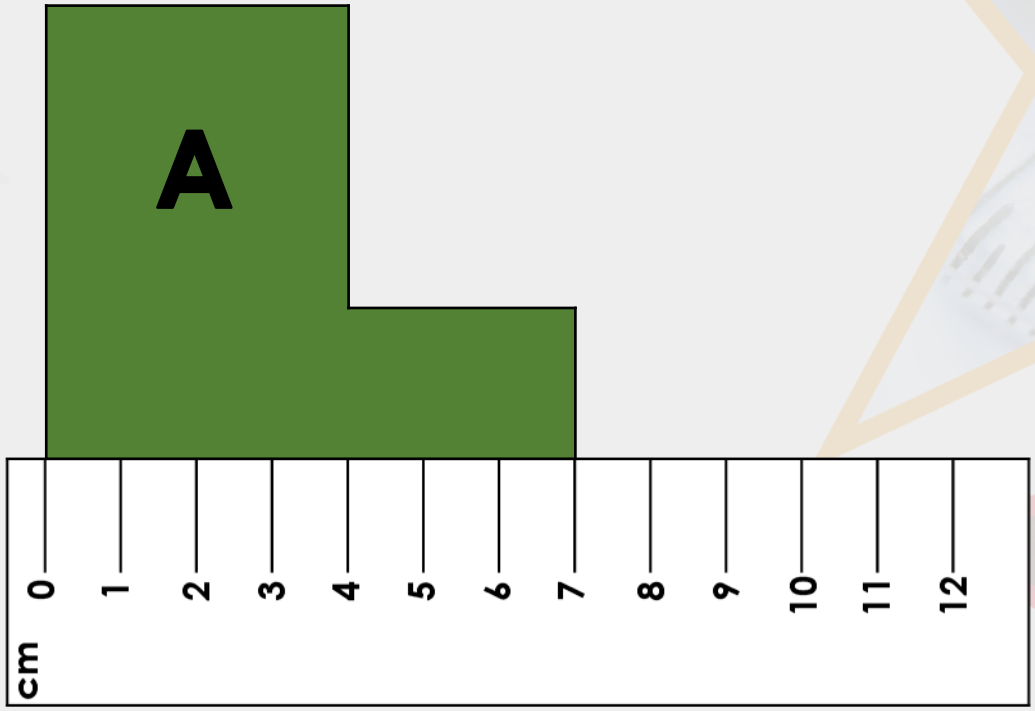




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Varied Fluency 3

Which shape has the longest perimeter?

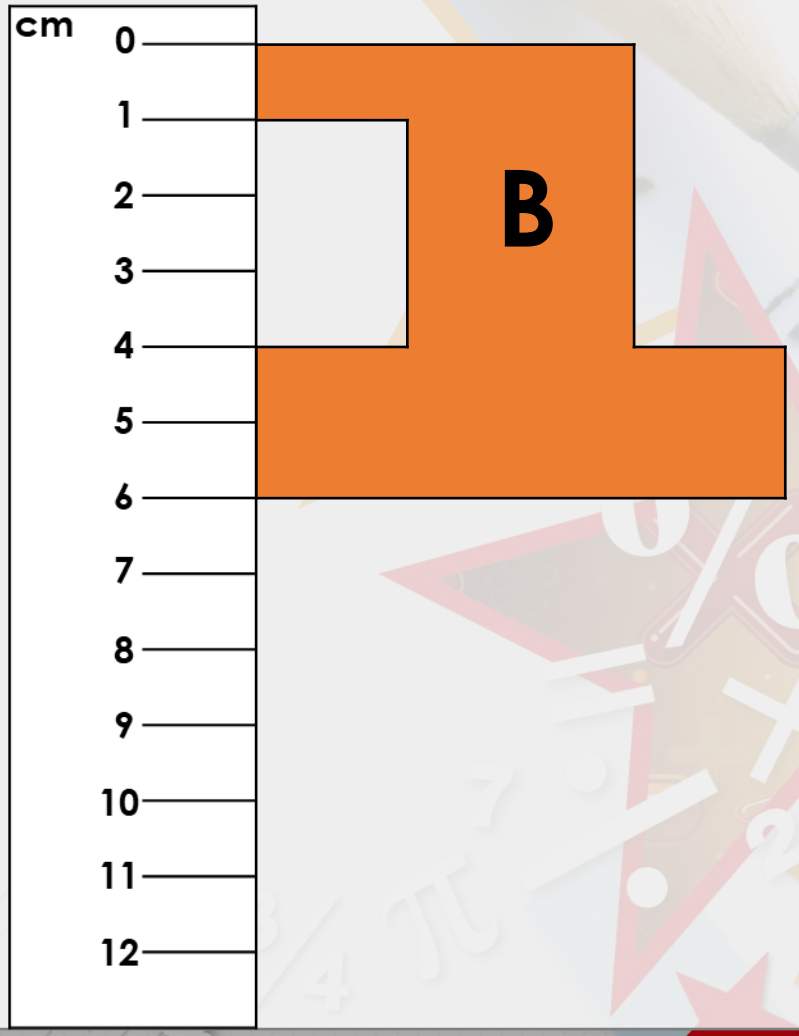


Measure each side with a ruler.

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Varied Fluency 3

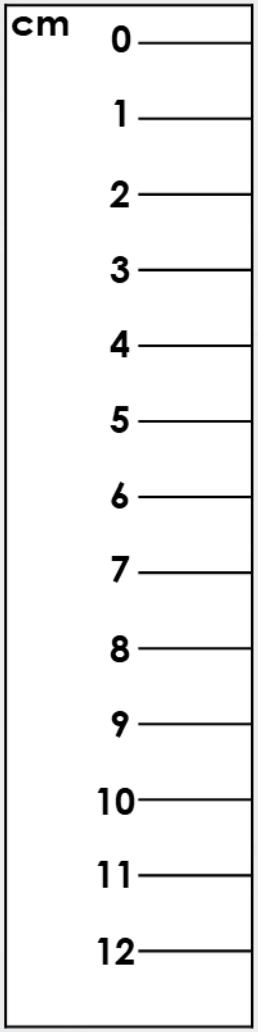
Which shape has the longest perimeter?

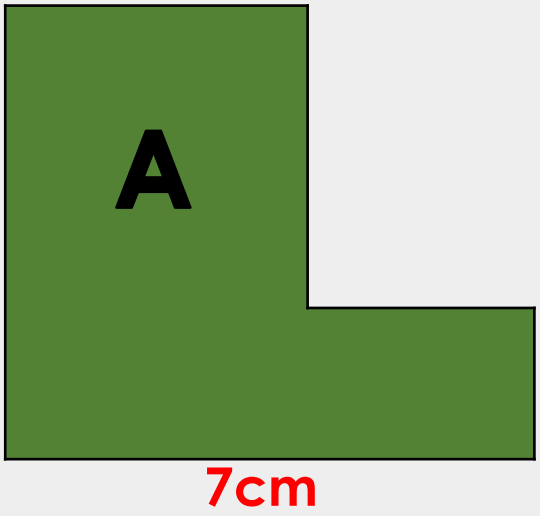


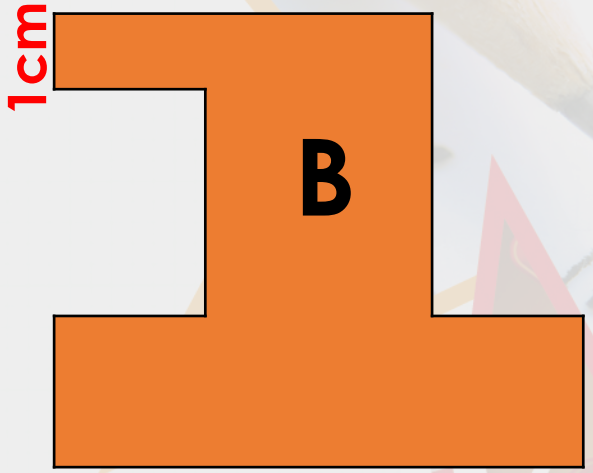
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Varied Fluency 3

Which shape has the longest perimeter?





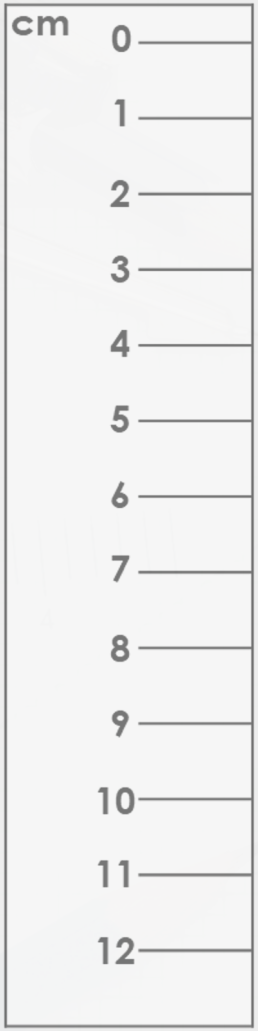


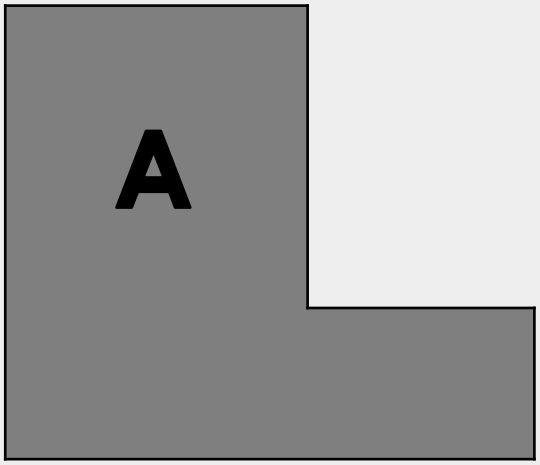
The sides measured were 7cm on shape A and 1cm on shape B.
Now measure any other sides needed using the same method.

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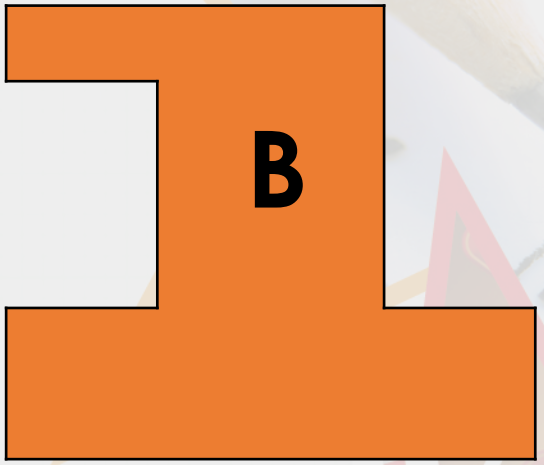
Varied Fluency 3

Which shape has the longest perimeter?





26cm



30cm

Shape B

Shape A: 7cm + 6cm + 4cm + 4cm + 3cm + 2cm = 26cm

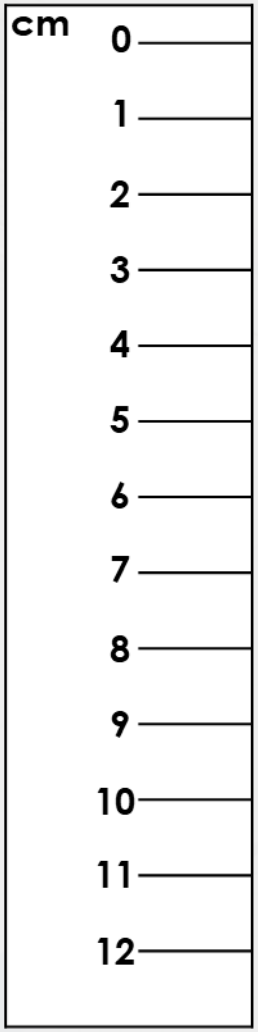
Shape B: 7cm + 2cm + 2cm + 3cm + 2cm + 1cm + 5cm + 4cm + 2cm + 2cm = 30cm

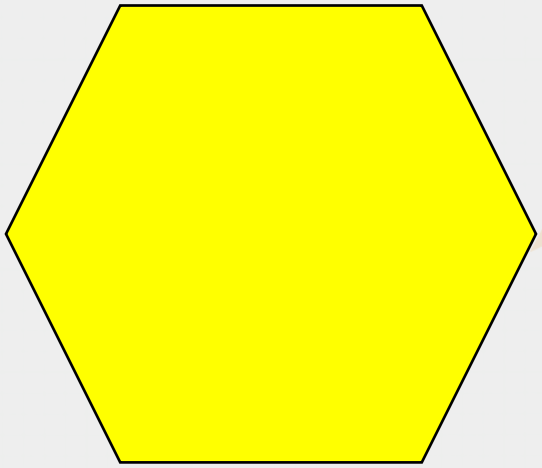
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Varied Fluency 4

True or false?

The perimeter of this shape is 26cm.



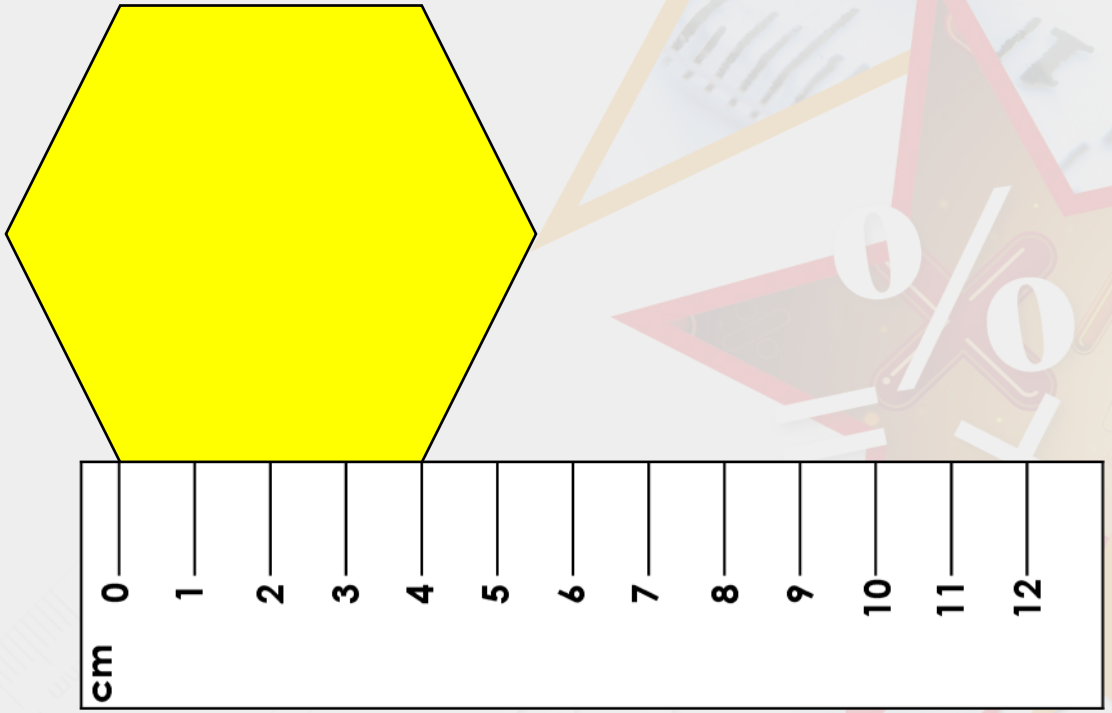


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Varied Fluency 4

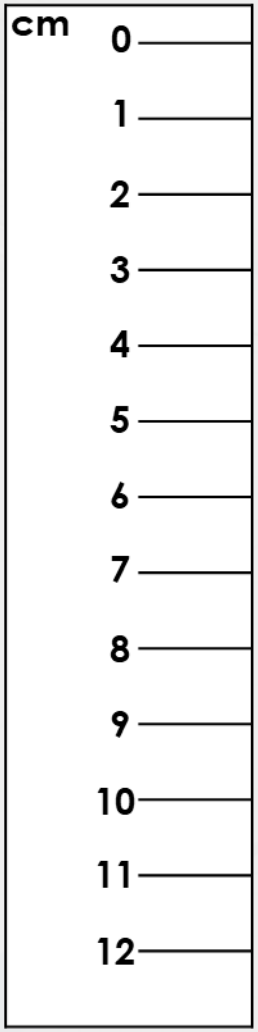
True or false?

The perimeter of this shape is 26cm.



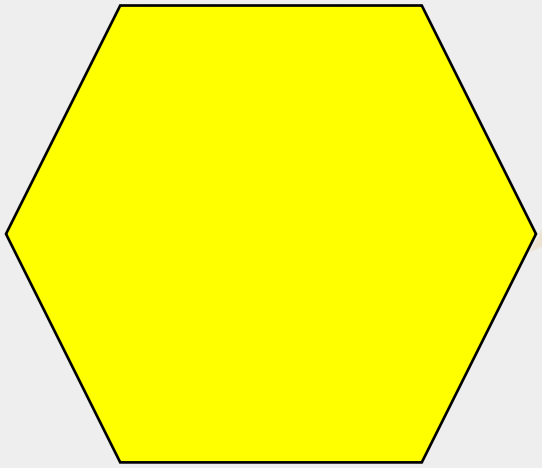
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Varied Fluency 4



True or false?

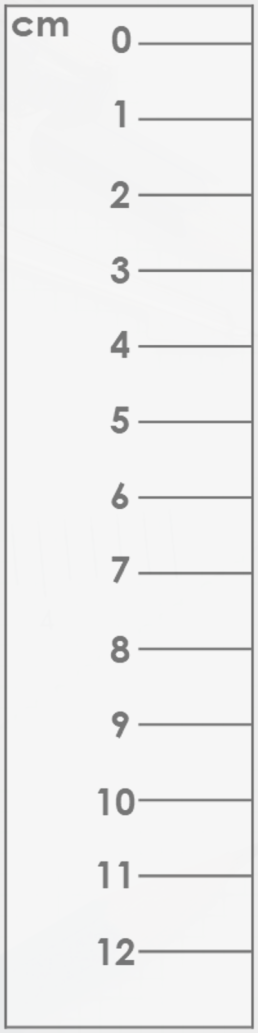
The perimeter of this shape is 26cm.



The side measured was 4cm. Now measure any other sides needed using the same method.

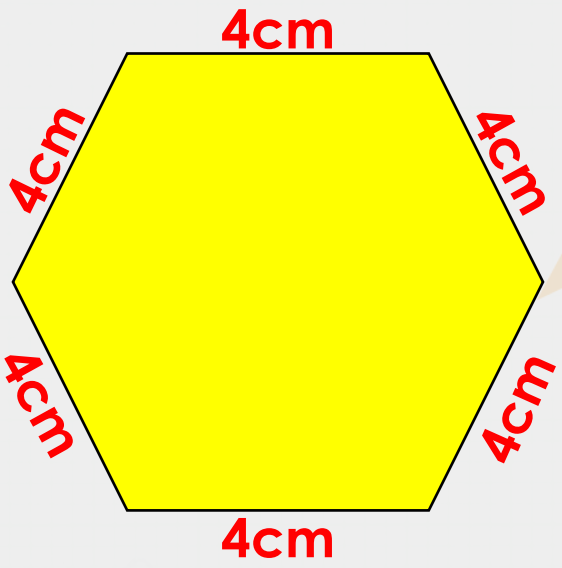
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Varied Fluency 4



True or false?

The perimeter of this shape is 26cm.

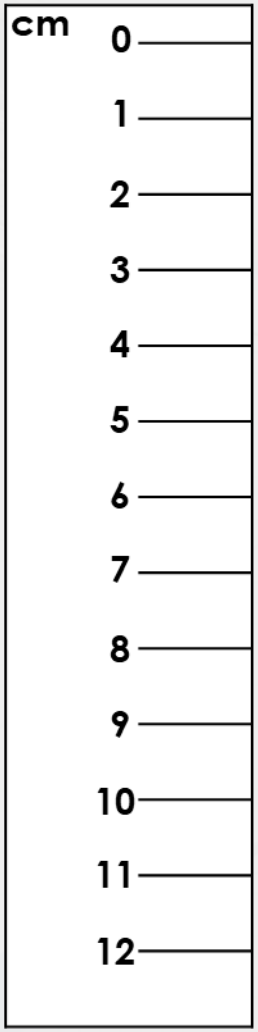


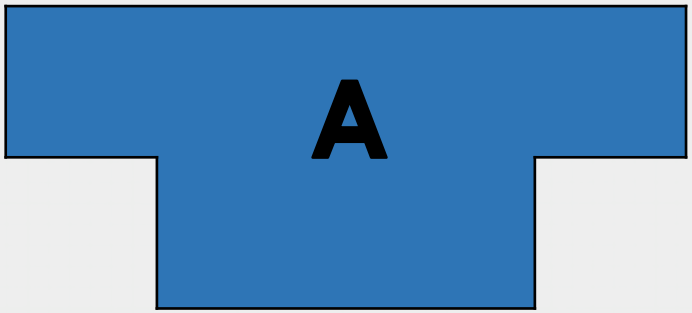
False. The perimeter of this shape is 24cm.
4cm + 4cm + 4cm + 4cm + 4cm + 4cm = 24cm

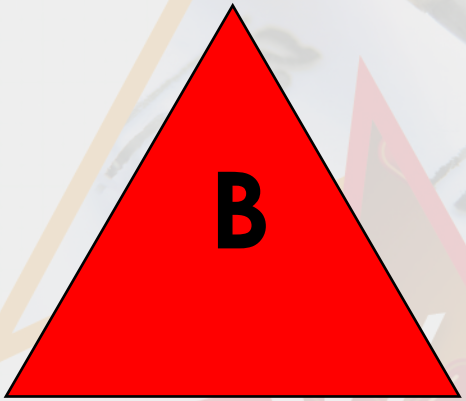
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Problem Solving 1

True or false?
The perimeters of these shapes are the same.







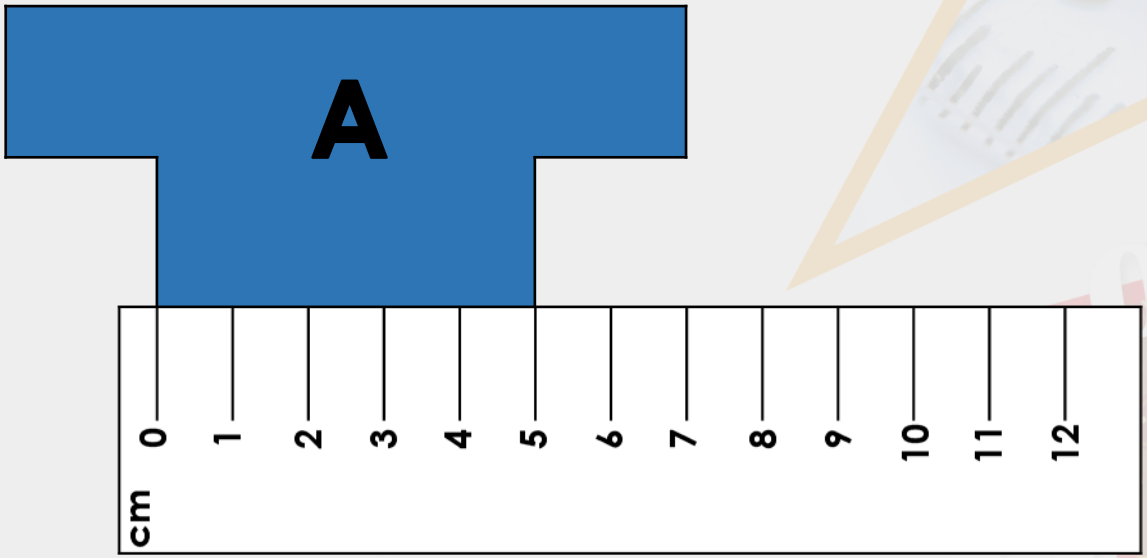
Prove it!

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Problem Solving 1

True or false?
The perimeters of these shapes are the same.

Measure each side with a ruler.

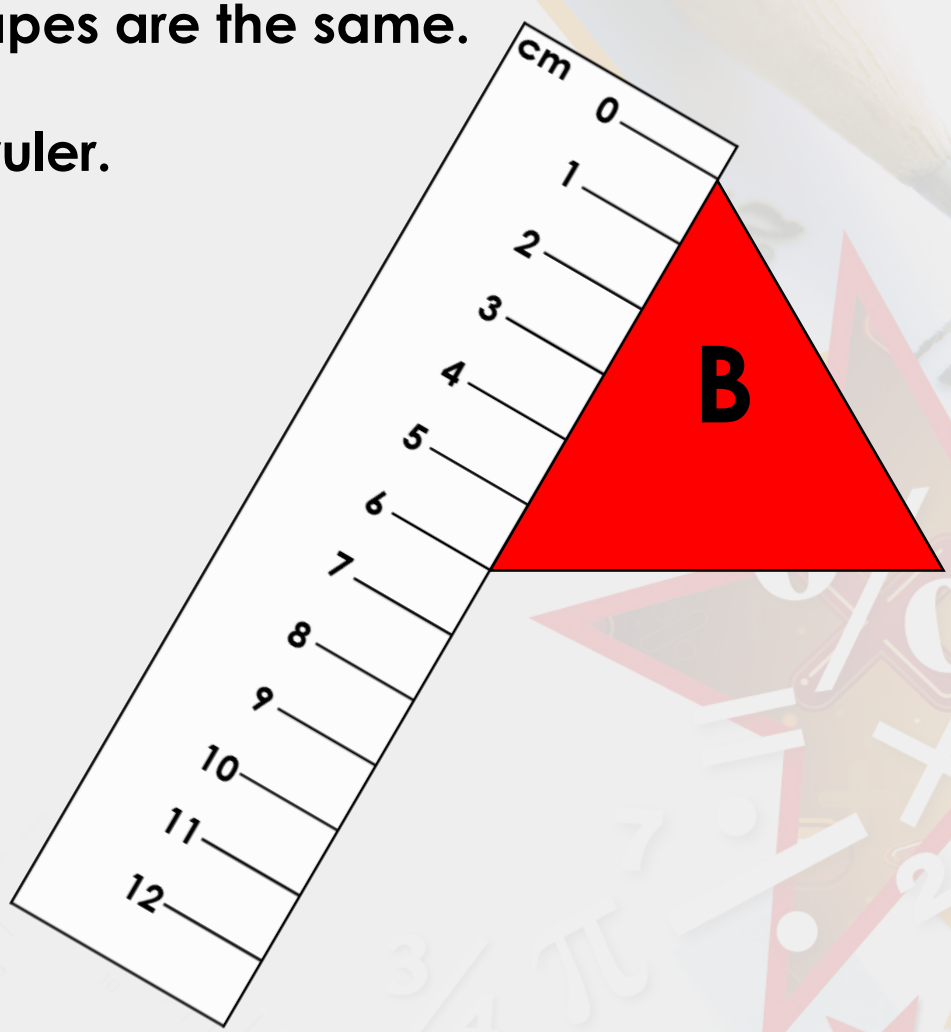


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Problem Solving 1

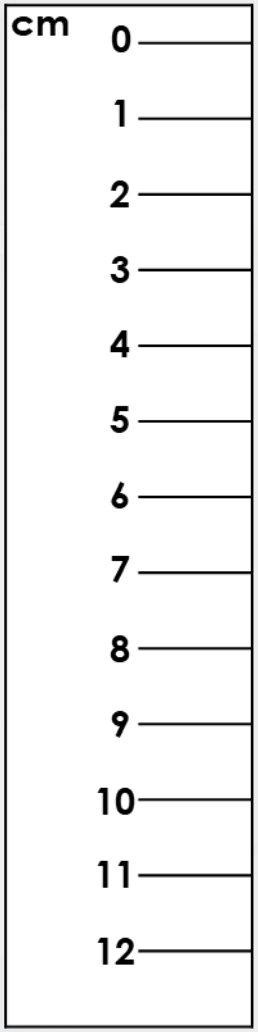
True or false?
The perimeters of these shapes are the same.

Measure each side with a ruler.

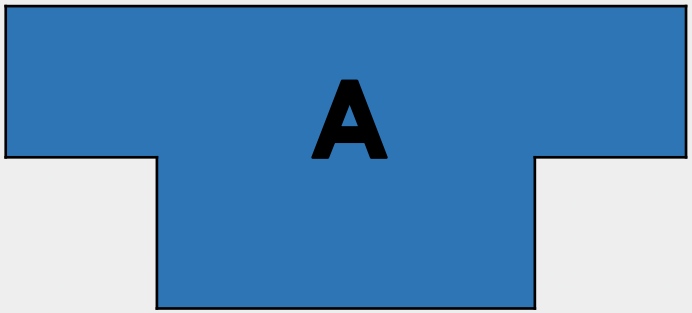


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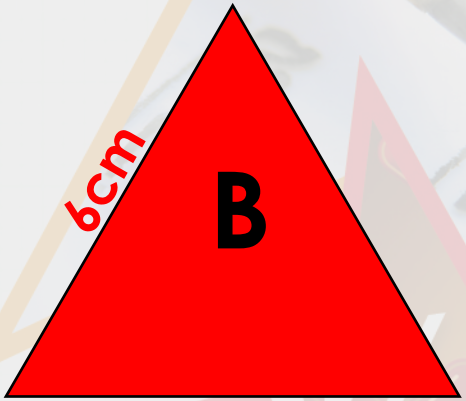
Problem Solving 1



True or false?
The perimeters of these shapes are the same.



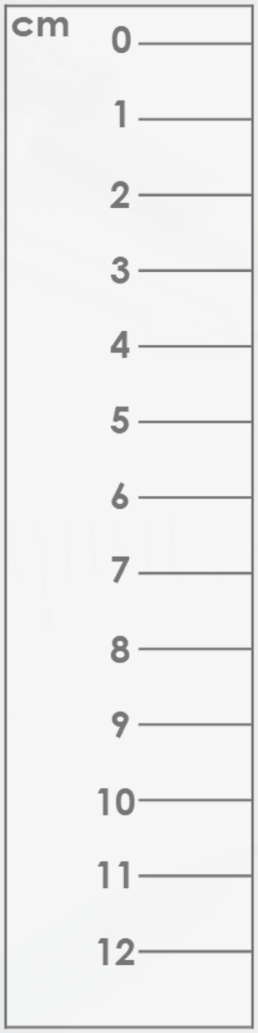
5cm



The sides measured were 5cm on shape A and 6cm on shape B.
Now measure any other sides needed using the same method.

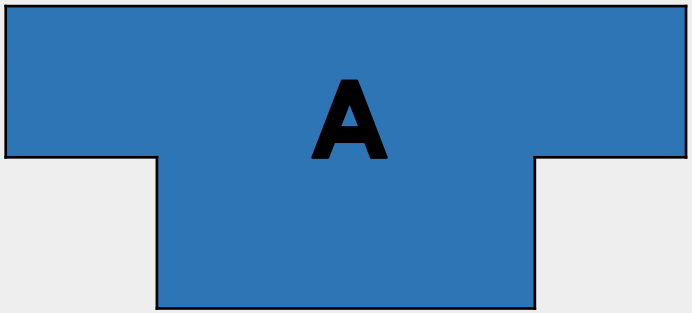
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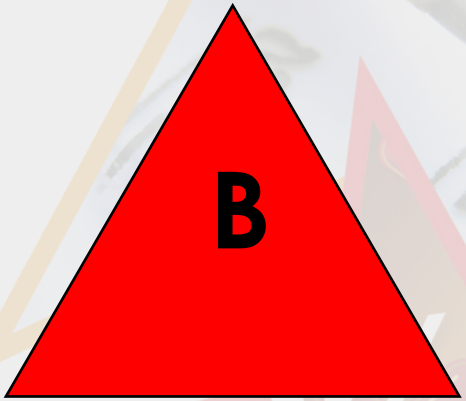
Problem Solving 1



True or false?

The perimeters of these shapes are the same.





Prove it!

False. Shape A = 26cm and Shape B = 18cm.

Shape A: 5cm + 2cm + 2cm + 2cm + 9cm + 2cm + 2cm + 2cm = 26cm

Shape B: 6cm + 6cm + 6cm = 18cm

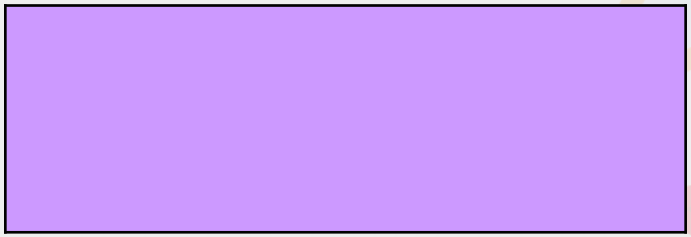
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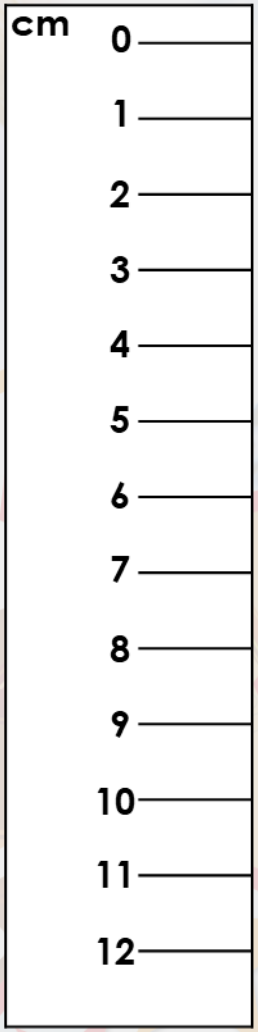
Reasoning 1

Freya says,



I used a ruler to measure the shape below. The perimeter is 12cm.





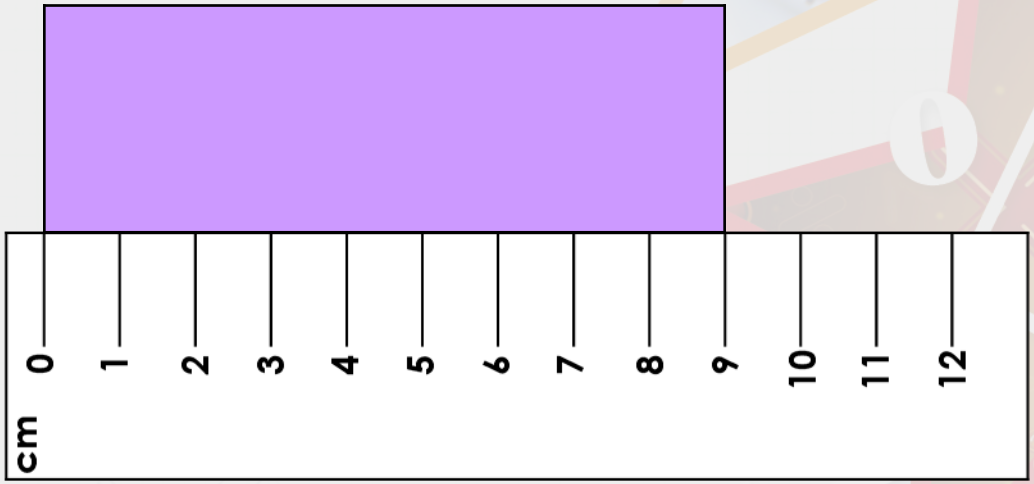
What mistake has Freya made? Prove it!

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Freya says,



I used a ruler to measure the shape below. The perimeter is 12cm.



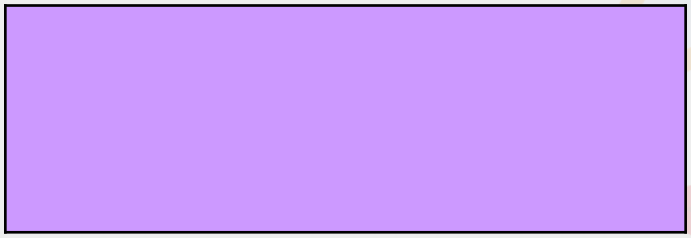
Measure each side with a ruler.

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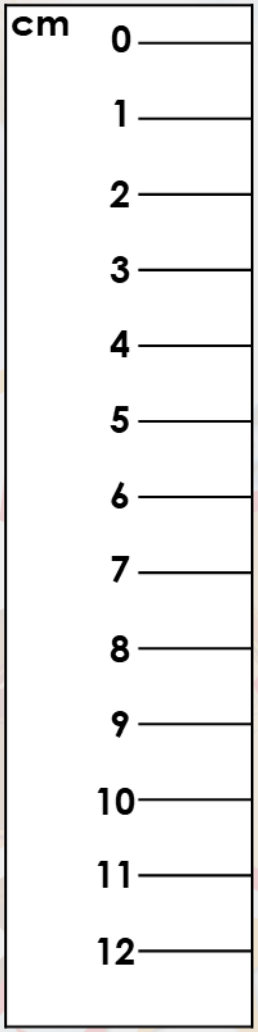
Freya says,



I used a ruler to measure the shape below. The perimeter is 12cm.



9cm



The side measured was 9cm.
Now measure any other sides needed using the same method.

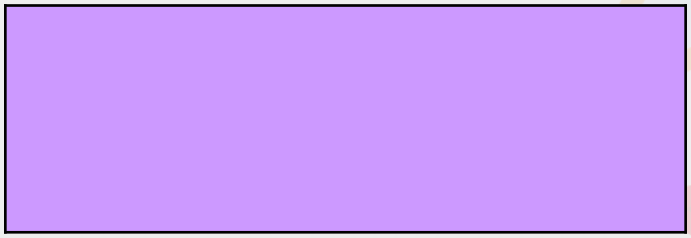
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Reasoning 1

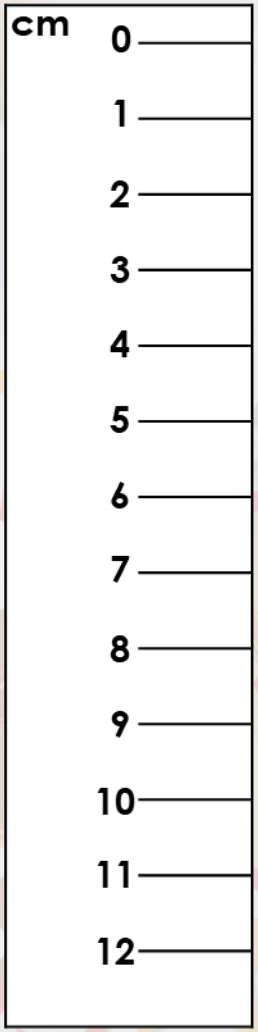
Freya says,



I used a ruler to measure the shape below. The perimeter is 12cm.



9cm



What mistake has Freya made? Prove it!
The perimeter of the shape is …

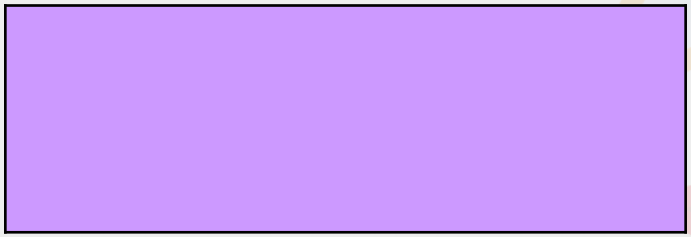
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Reasoning 1

Freya says,



I used a ruler to measure the shape below. The perimeter is 12cm.





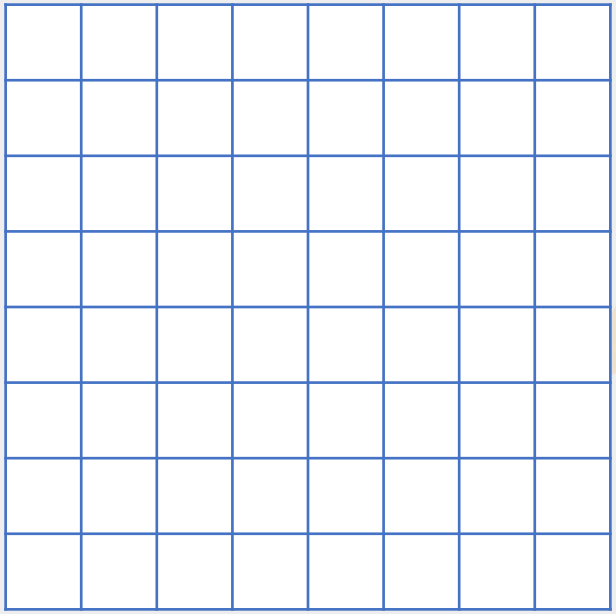
What mistake has Freya made? Prove it!

The perimeter of the shape is 24cm, not 12cm.
Freya has only added two of the four sides.
9cm + 3cm + 9cm + 3cm = 24 cm

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Problem Solving 2

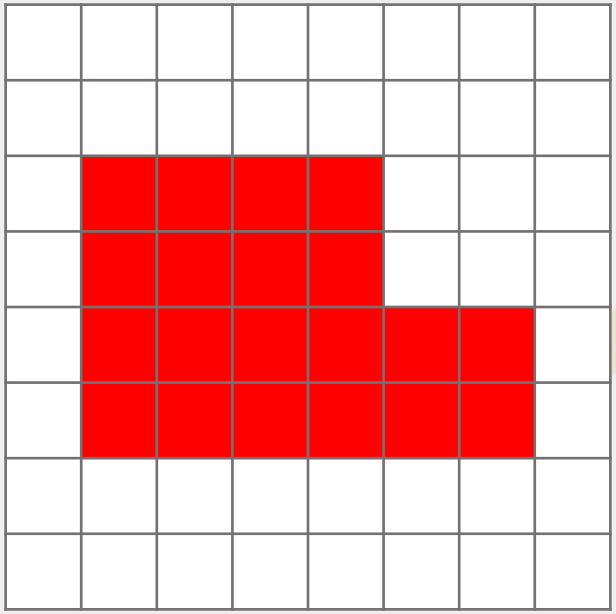
On 1cm squared paper draw a 6-sided rectilinear shape with a perimeter that is more than 18cm and less than 22cm, and that is an even number.



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Problem Solving 2

On 1cm squared paper draw a 6-sided rectilinear shape with a perimeter that is more than 18cm and less than 22cm, and that is an even number.



Various answers, for example:

4cm + 2cm + 2cm + 2cm + 6cm + 4cm = 20cm

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