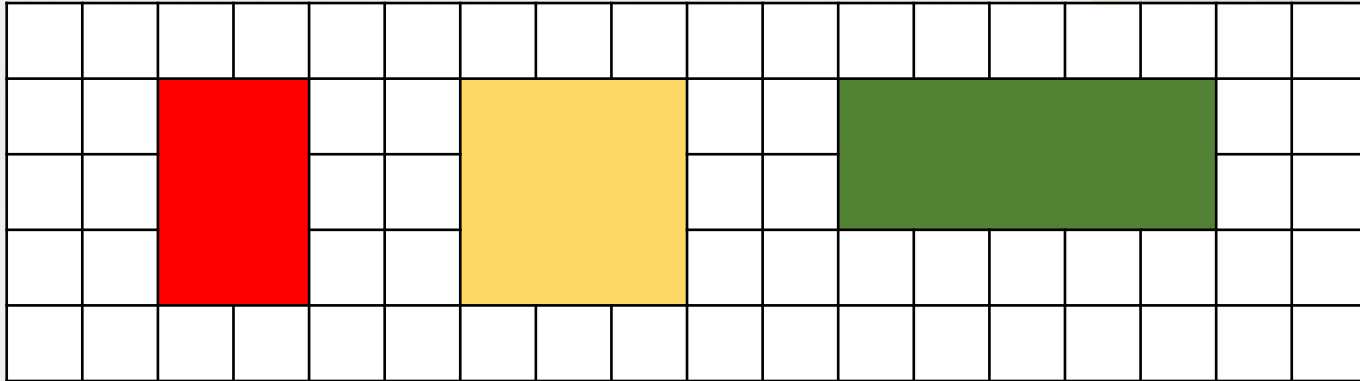


# Measuring Perimeter (revision)

You will need a ruler

## Introduction

**Match the shape to its perimeter.**



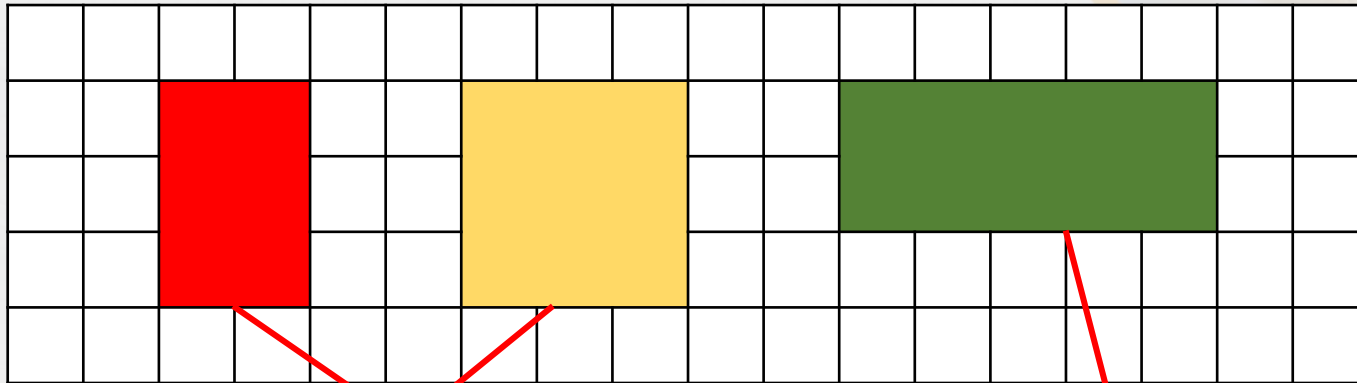
**12cm**

**10cm**

**14cm**

## Introduction

**Match the shape to its perimeter.**



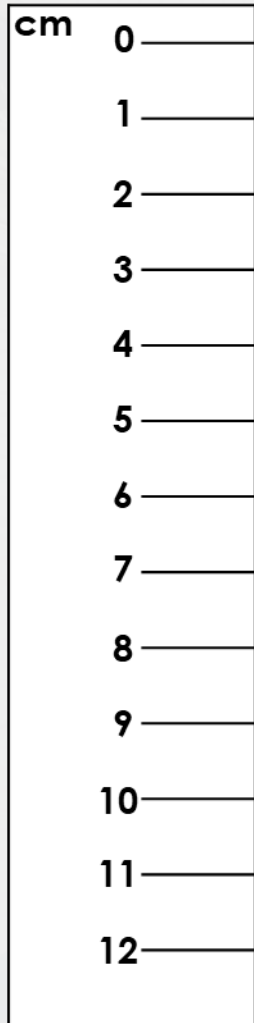
**12cm**

**10cm**

**14cm**

## Varied Fluency 1

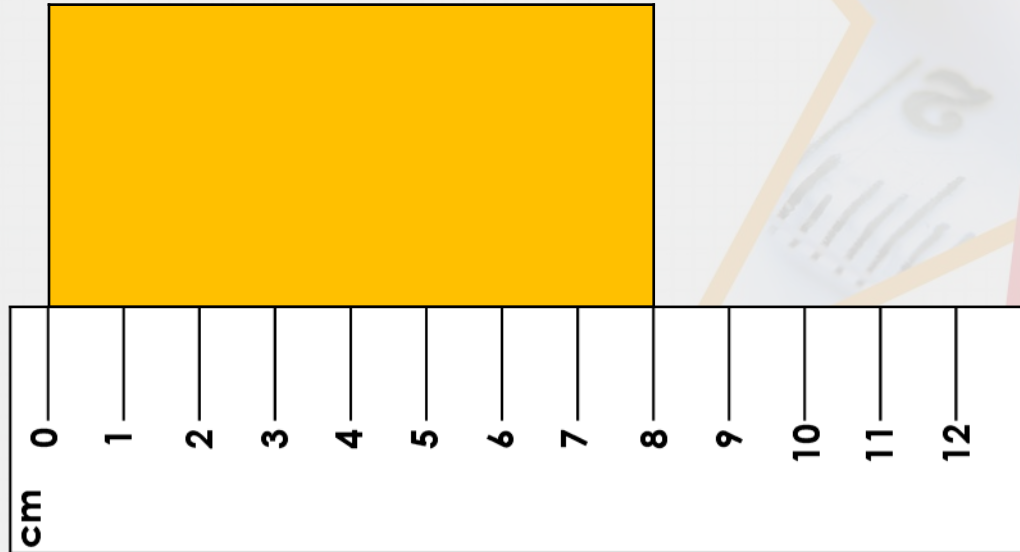
Find the perimeter of this shape.



## Varied Fluency 1

**Find the perimeter of this shape.**

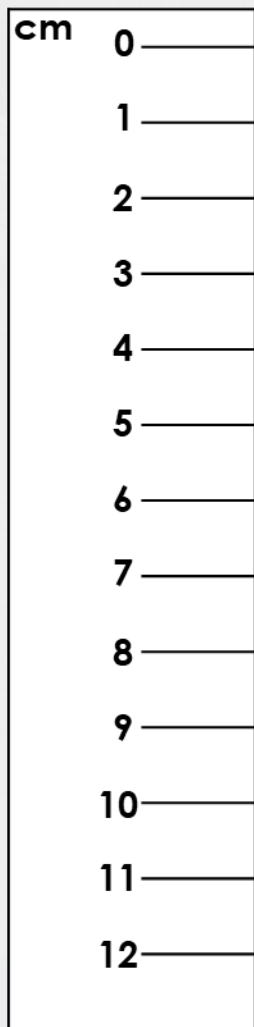
**Measure each side with a ruler.**





## Varied Fluency 1

**Find the perimeter of this shape.**

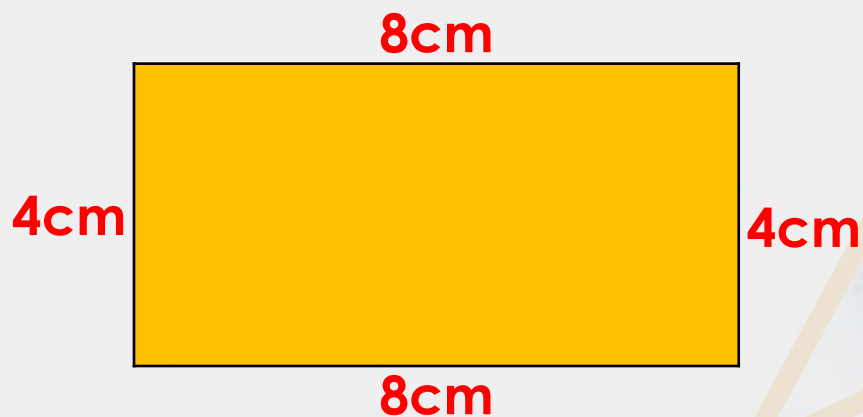
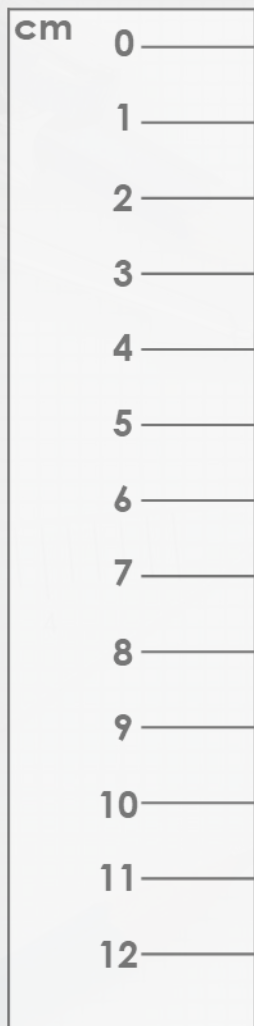


**8cm**

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

## Varied Fluency 1

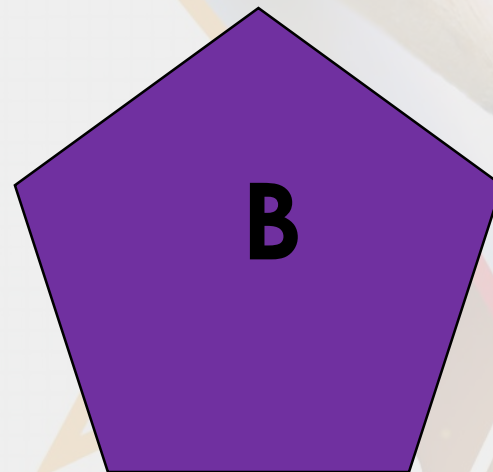
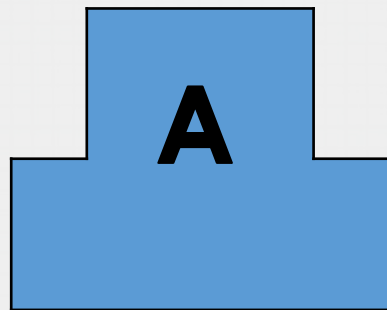
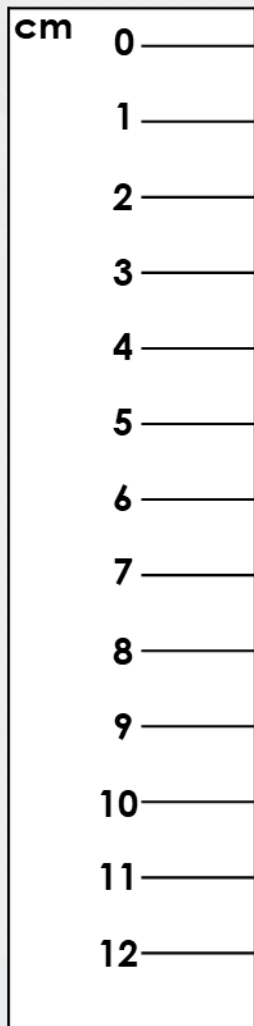
Find the perimeter of this shape.



$$8\text{cm} + 4\text{cm} + 8\text{cm} + 4\text{cm} = 24\text{cm}$$

## Varied Fluency 2

Match the shape to its perimeter.



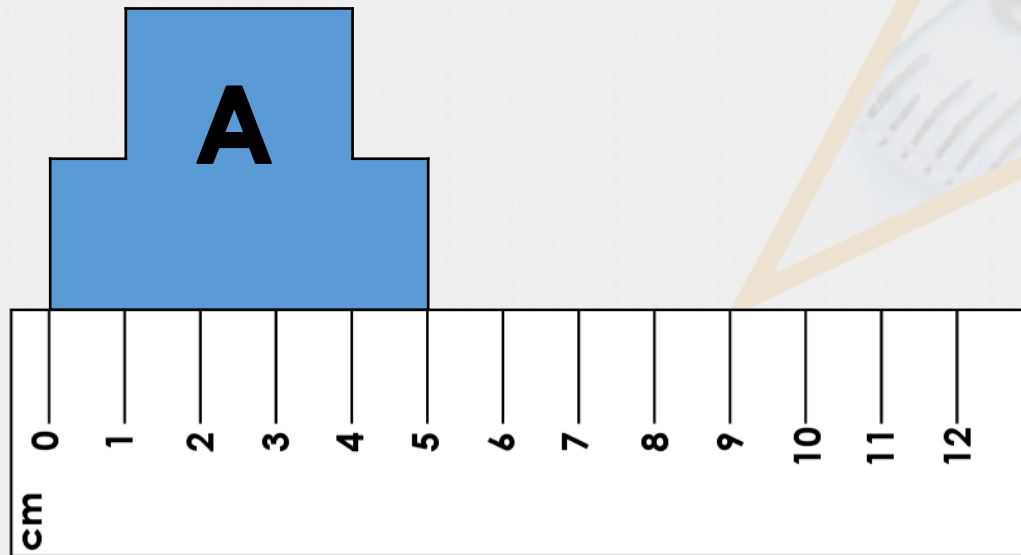
20cm

22cm

18cm

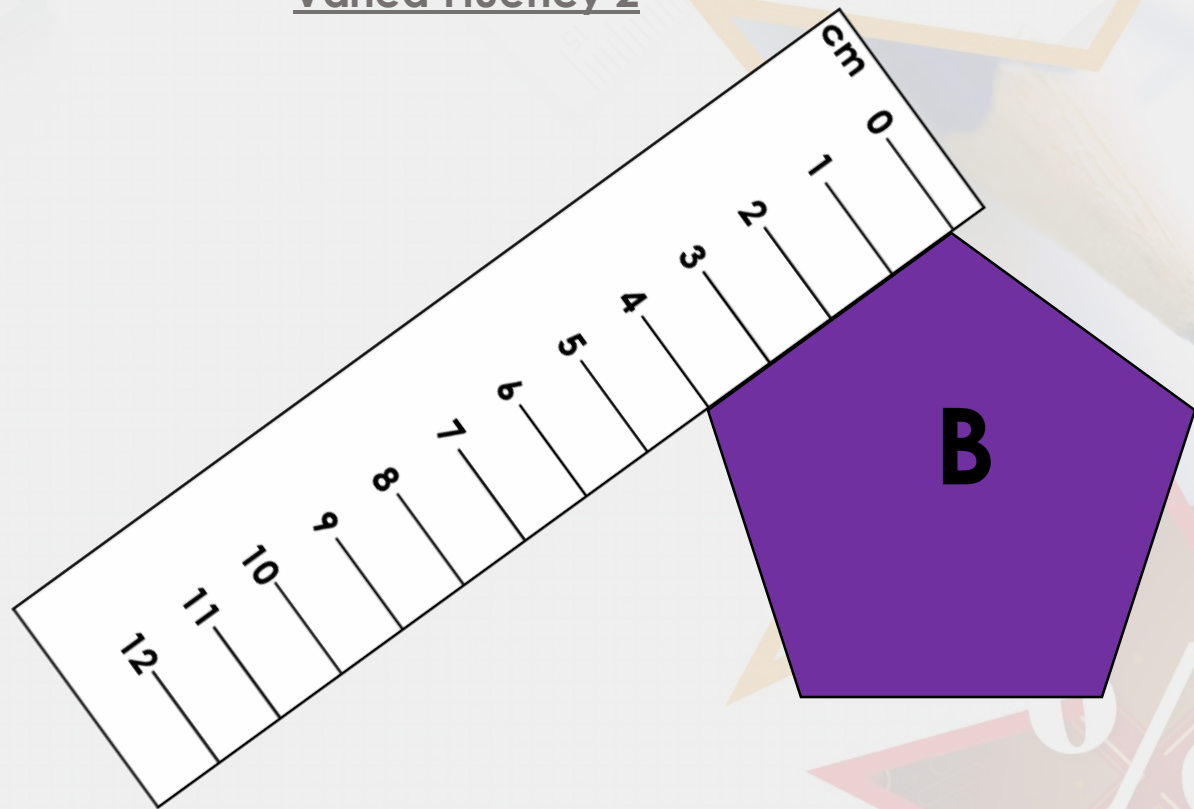


## Varied Fluency 2



**Measure each side with a ruler.**

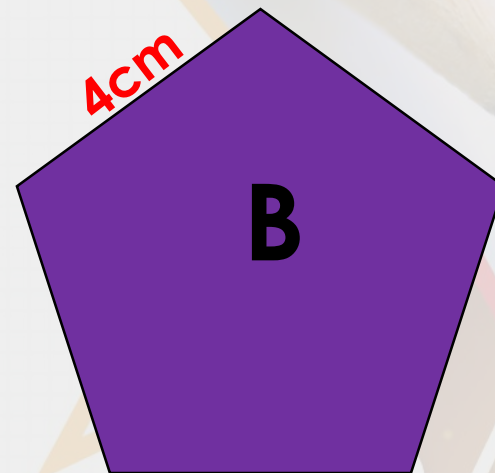
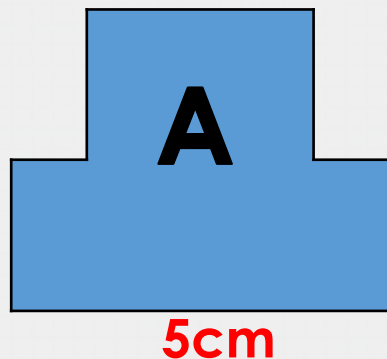
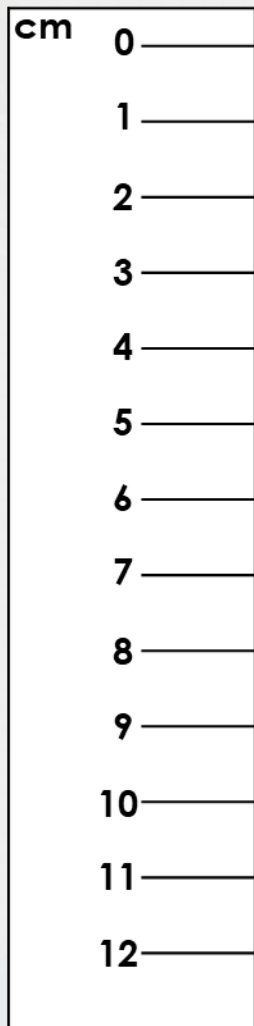
## Varied Fluency 2



**Measure each side with a ruler.**

## Varied Fluency 2

Match the shape to its perimeter.



The sides measured were 5cm on shape A  
and 4cm on shape B.

Now measure any other sides needed  
using the same method.

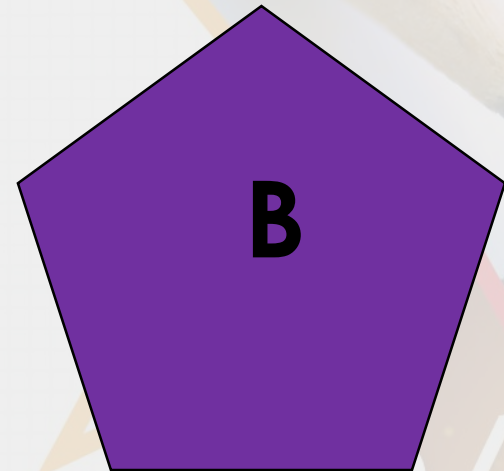
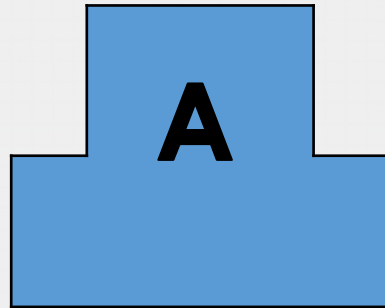
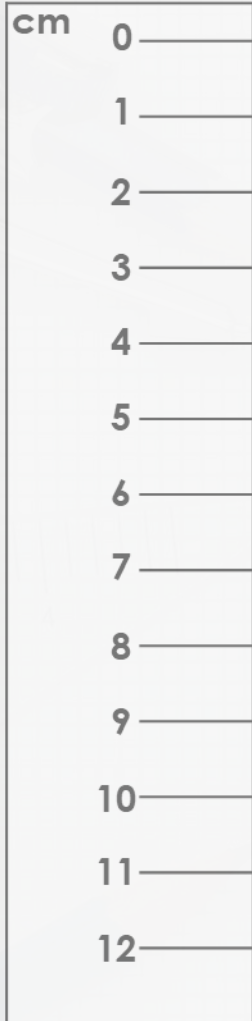
20cm

22cm

18cm

## Varied Fluency 2

Match the shape to its perimeter.



20cm

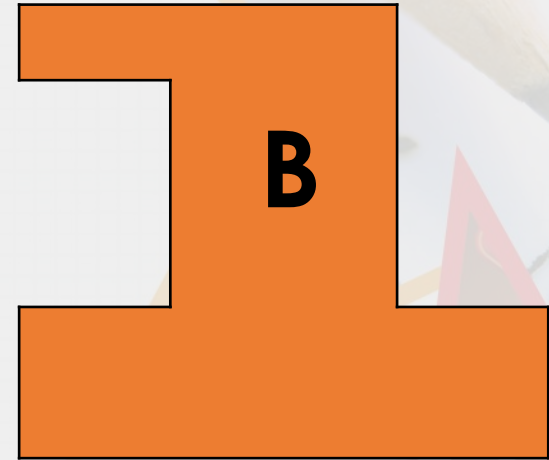
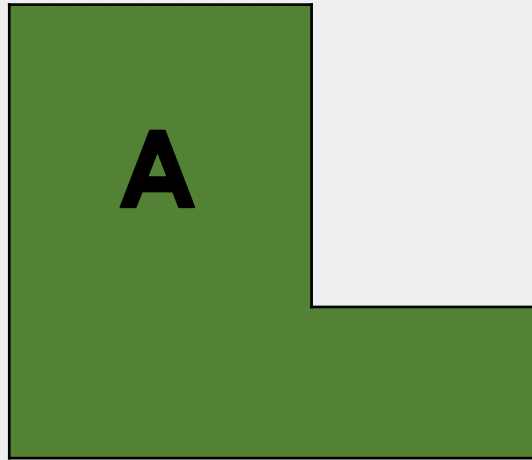
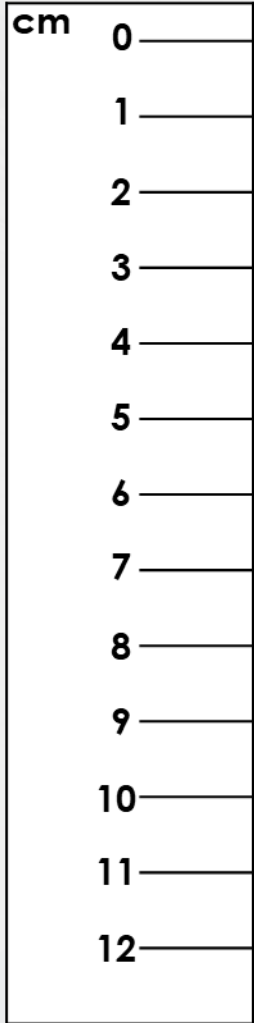
22cm

18cm

Shape A:  $5\text{cm} + 2\text{cm} + 1\text{cm} + 2\text{cm} + 3\text{cm} + 2\text{cm} + 1\text{cm} = 18\text{cm}$   
Shape B:  $4\text{cm} + 4\text{cm} + 4\text{cm} + 4\text{cm} + 4\text{cm} = 20\text{cm}$

### Varied Fluency 3

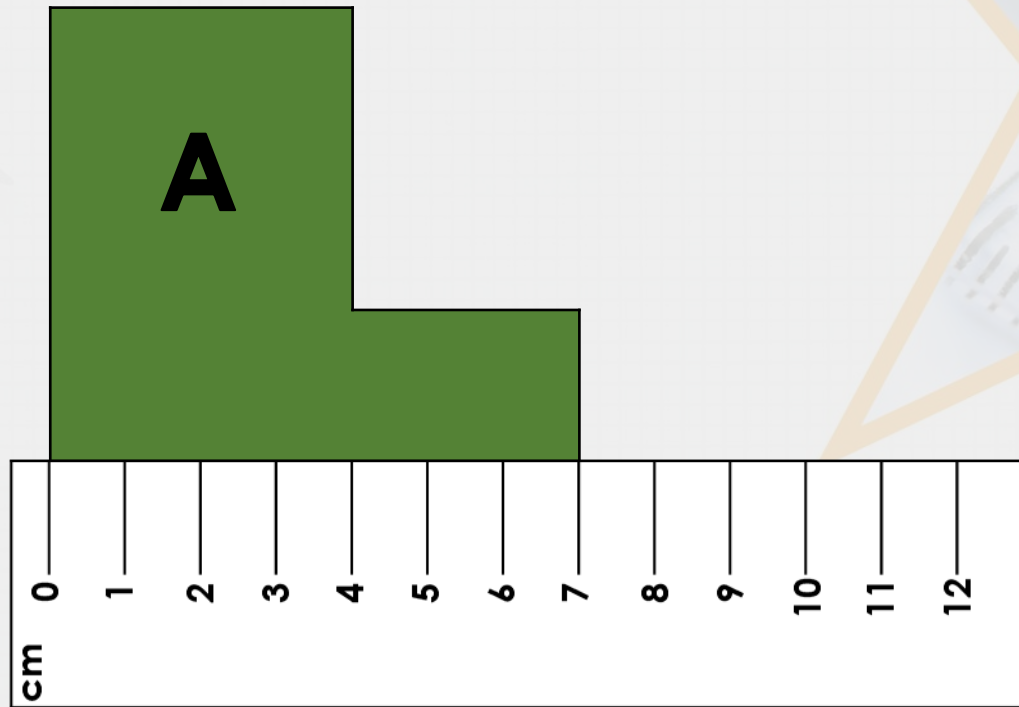
Which shape has the longest perimeter?





### Varied Fluency 3

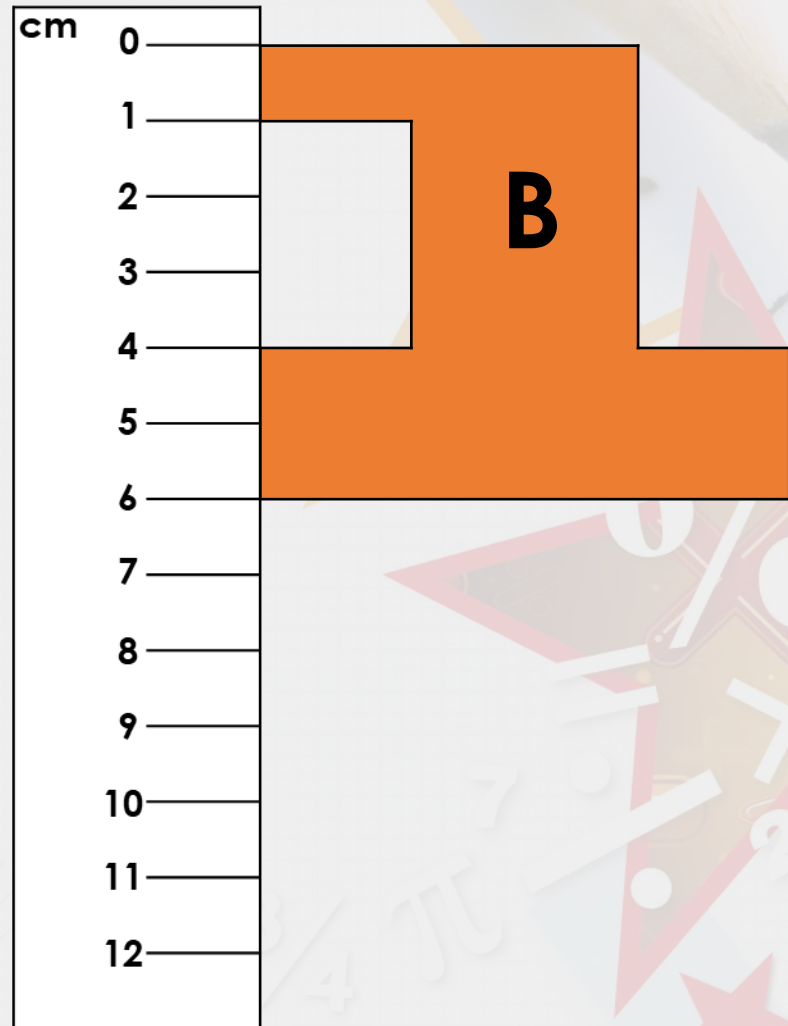
Which shape has the longest perimeter?



Measure each side with a ruler.

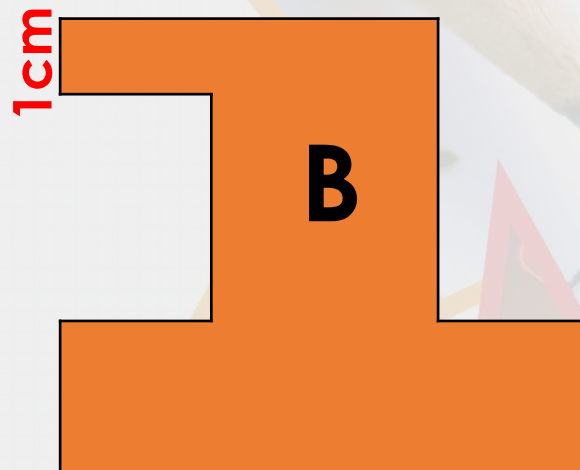
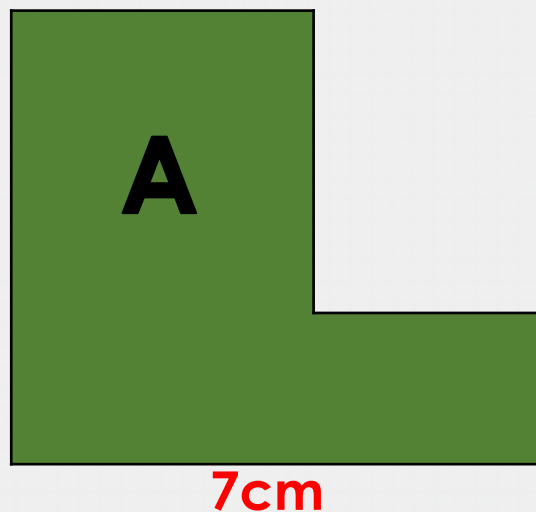
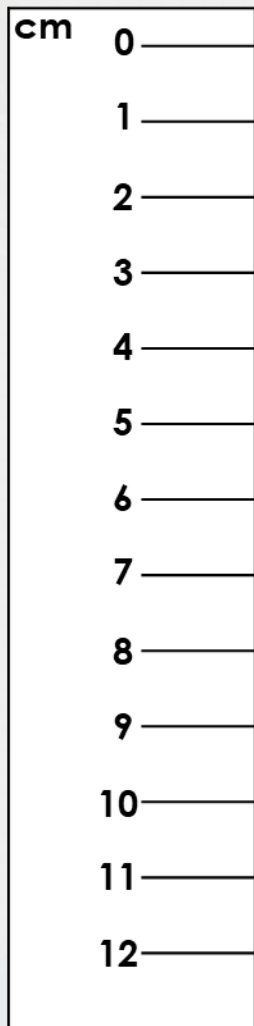
### Varied Fluency 3

Which shape has the longest perimeter?



### Varied Fluency 3

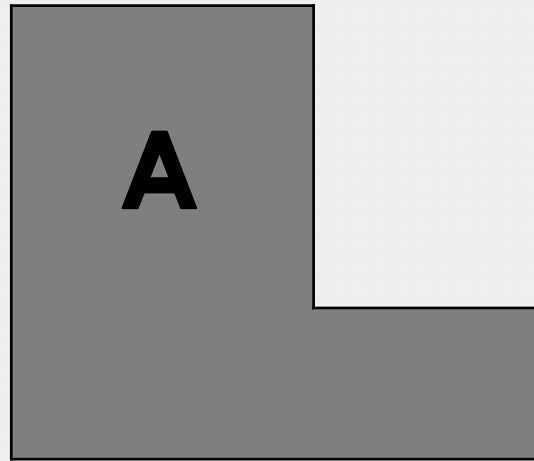
Which shape has the longest perimeter?



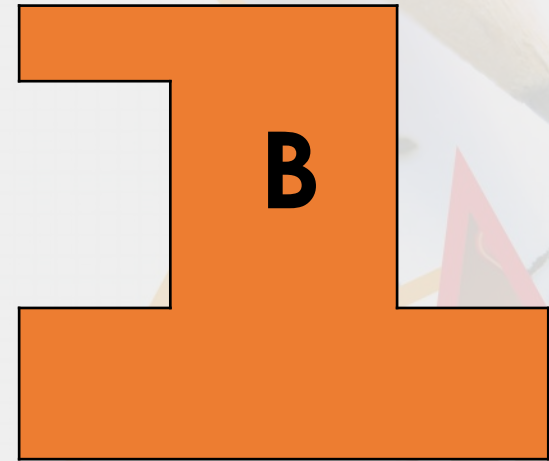
The sides measured were 7cm on shape A  
and 1cm on shape B.  
Now measure any other sides needed  
using the same method.

### Varied Fluency 3

Which shape has the longest perimeter?



26cm



30cm

**Shape B**

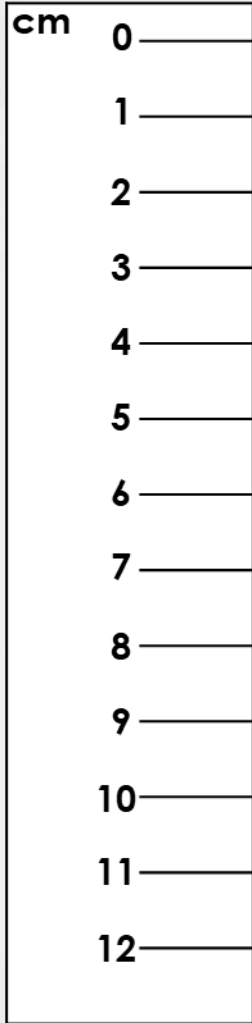
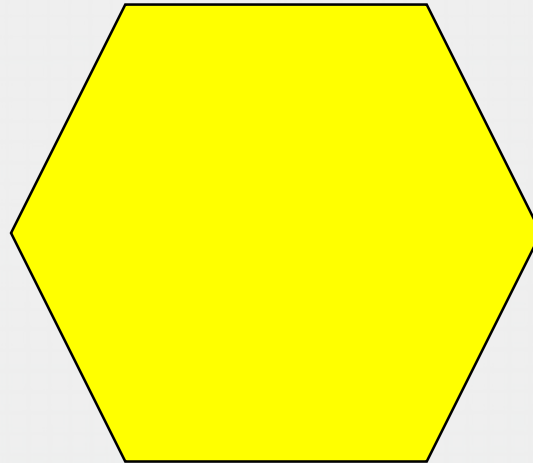
Shape A:  $7\text{cm} + 6\text{cm} + 4\text{cm} + 4\text{cm} + 3\text{cm} + 2\text{cm} = 26\text{cm}$

Shape B:  $7\text{cm} + 2\text{cm} + 2\text{cm} + 3\text{cm} + 2\text{cm} + 1\text{cm} + 5\text{cm} + 4\text{cm} + 2\text{cm} + 2\text{cm} = 30\text{cm}$

## Varied Fluency 4

**True or false?**

**The perimeter of this shape is 26cm.**

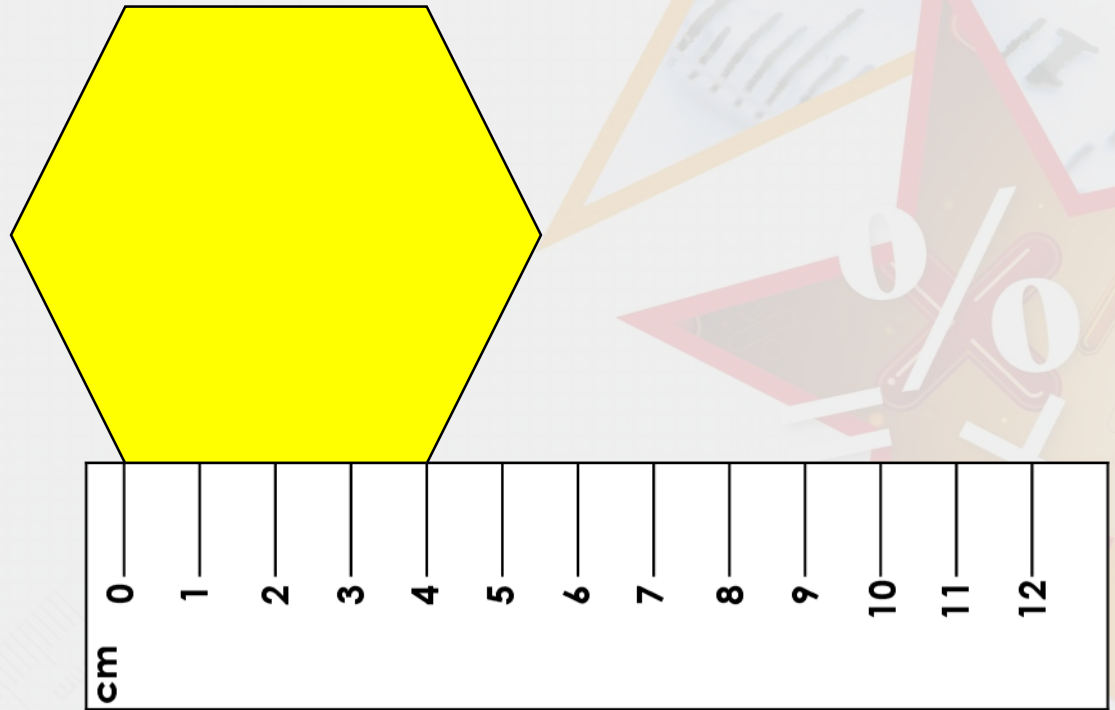




## Varied Fluency 4

**True or false?**

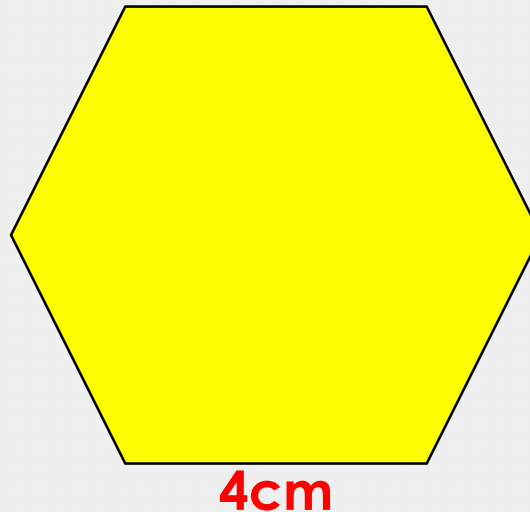
**The perimeter of this shape is 26cm.**



## Varied Fluency 4

**True or false?**

**The perimeter of this shape is 26cm.**

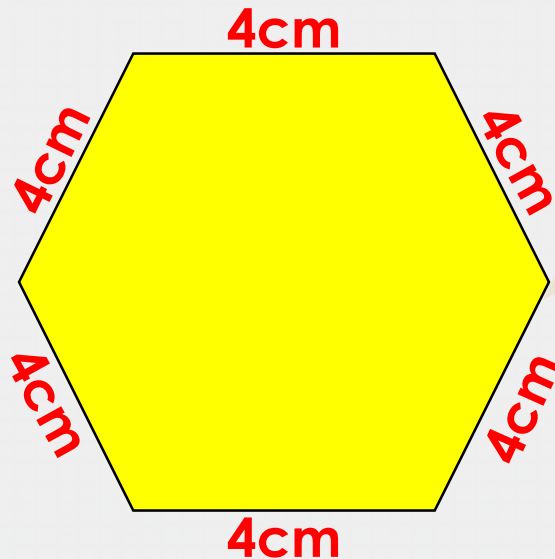


**The side measured was 4cm. Now measure any other sides needed using the same method.**

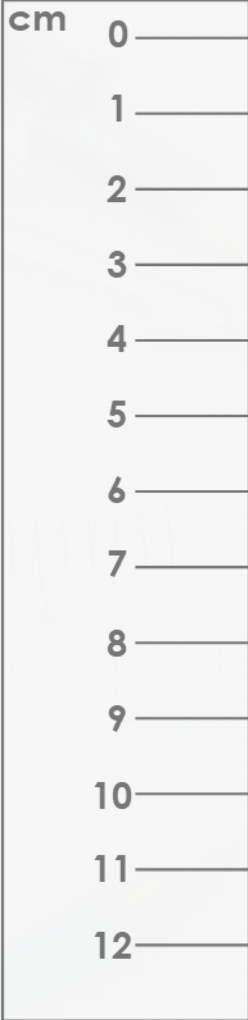
## Varied Fluency 4

**True or false?**

**The perimeter of this shape is 26cm.**



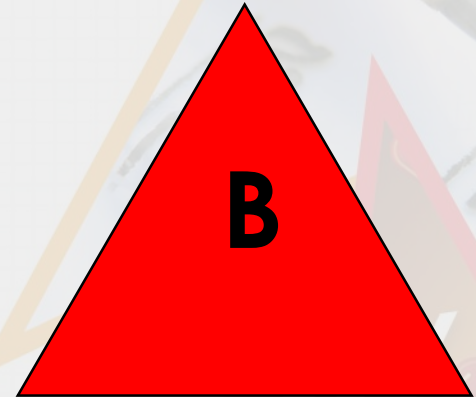
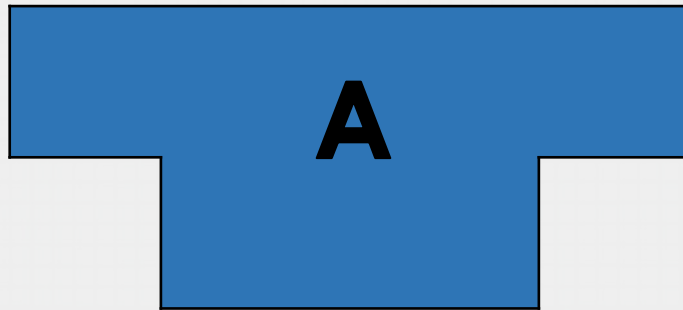
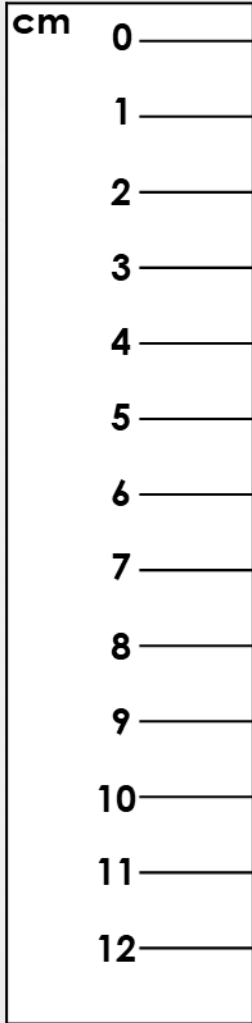
**False. The perimeter of this shape is 24cm.**  
 **$4\text{cm} + 4\text{cm} + 4\text{cm} + 4\text{cm} + 4\text{cm} + 4\text{cm} = 24\text{cm}$**



## Problem Solving 1

**True or false?**

**The perimeters of these shapes are the same.**



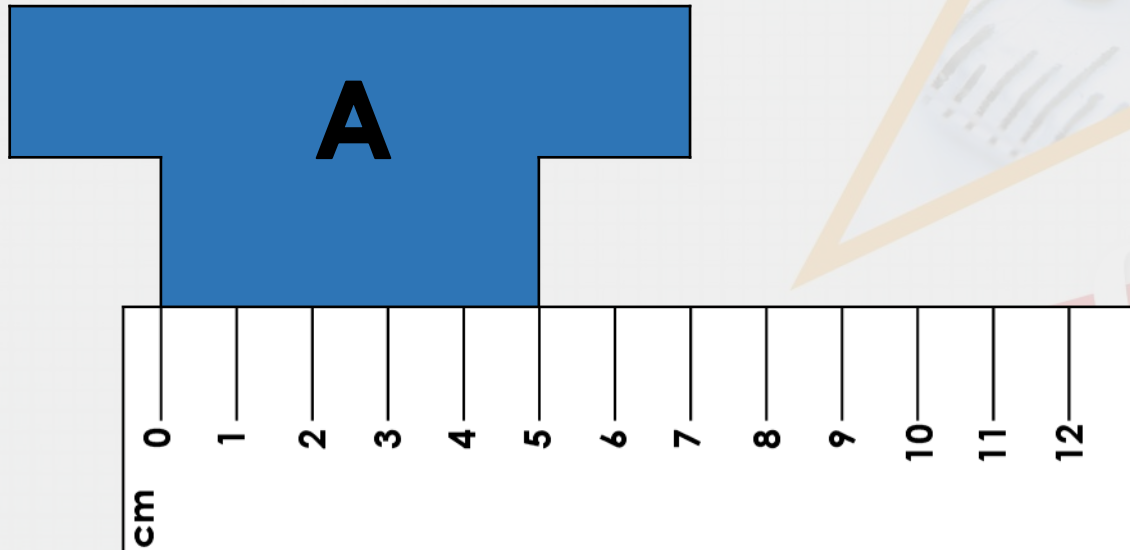
**Prove it!**



## Problem Solving 1

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

**Measure each side with a ruler.**



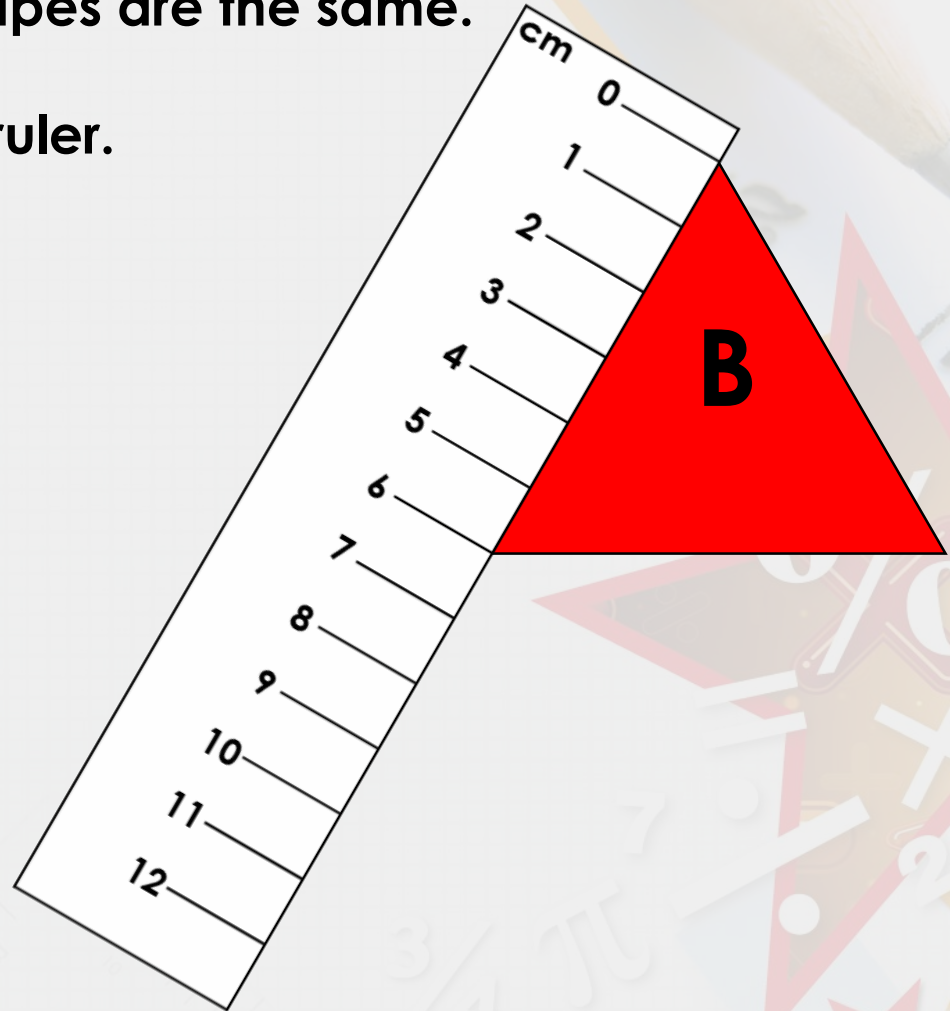


## Problem Solving 1

**True or false?**

**The perimeters of these shapes are the same.**

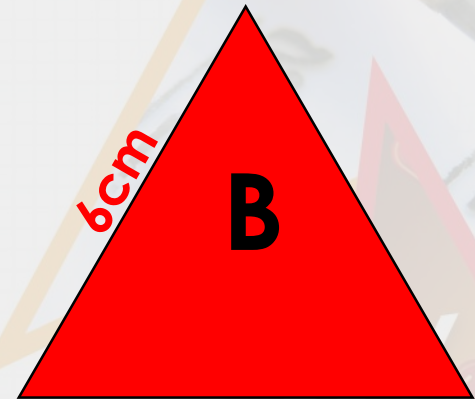
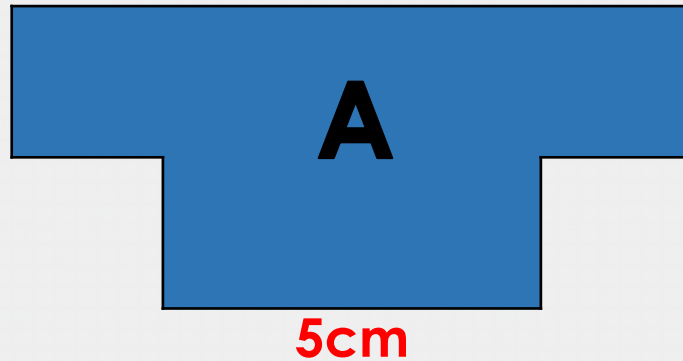
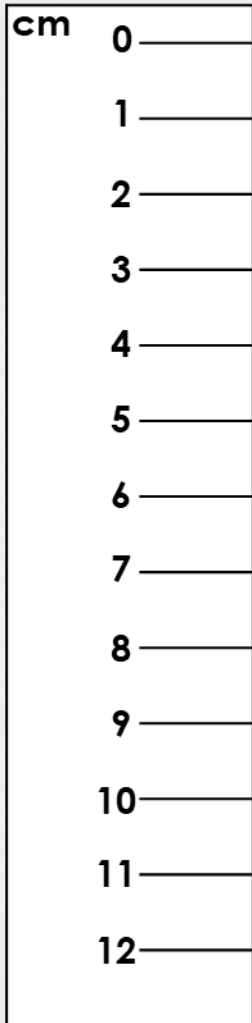
**Measure each side with a ruler.**



## Problem Solving 1

**True or false?**

**The perimeters of these shapes are the same.**



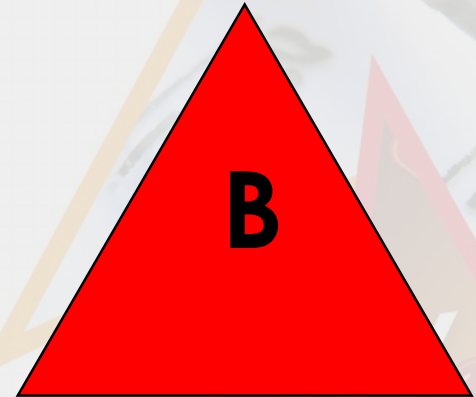
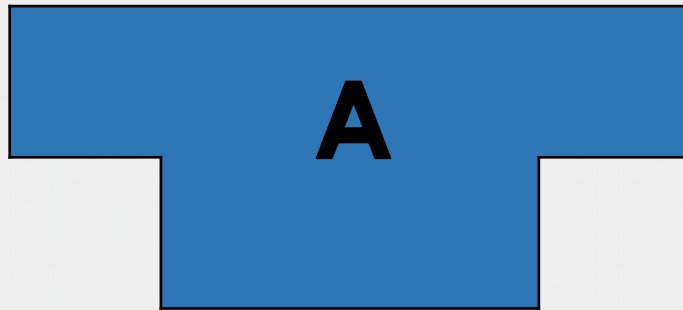
**The sides measured were 5cm on shape A  
and 6cm on shape B.**

**Now measure any other sides needed  
using the same method.**

## Problem Solving 1

**True or false?**

**The perimeters of these shapes are the same.**

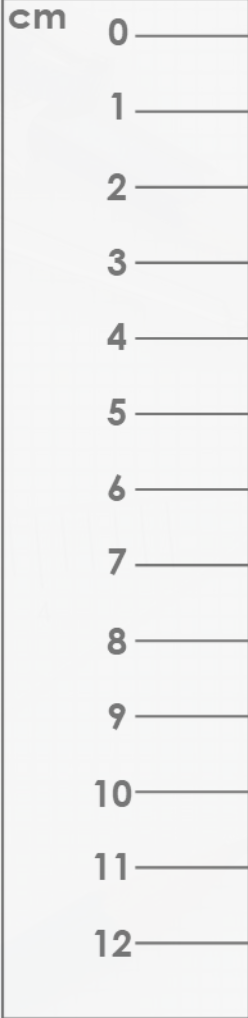


**Prove it!**

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

**Shape A:  $5\text{cm} + 2\text{cm} + 2\text{cm} + 2\text{cm} + 9\text{cm} + 2\text{cm} + 2\text{cm} + 2\text{cm} = 26\text{cm}$**

**Shape B:  $6\text{cm} + 6\text{cm} + 6\text{cm} = 18\text{cm}$**

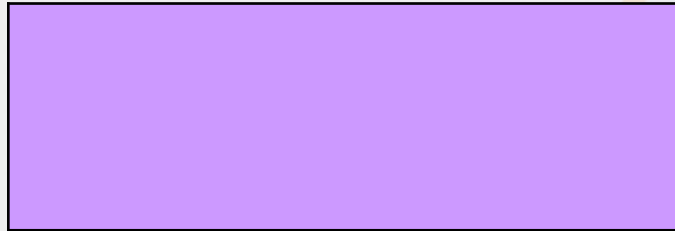


## Reasoning 1

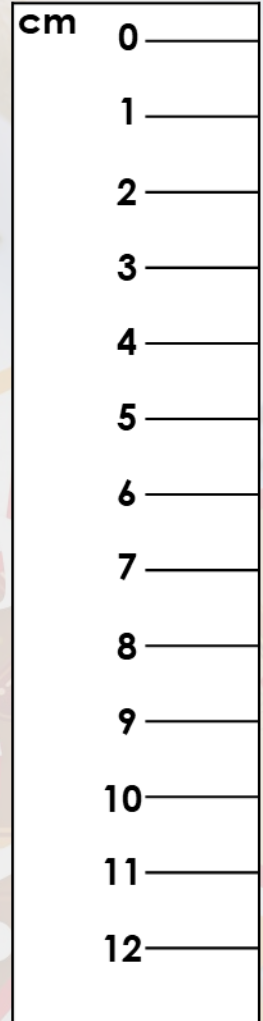
Freya says,



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



What mistake has Freya made? Prove it!



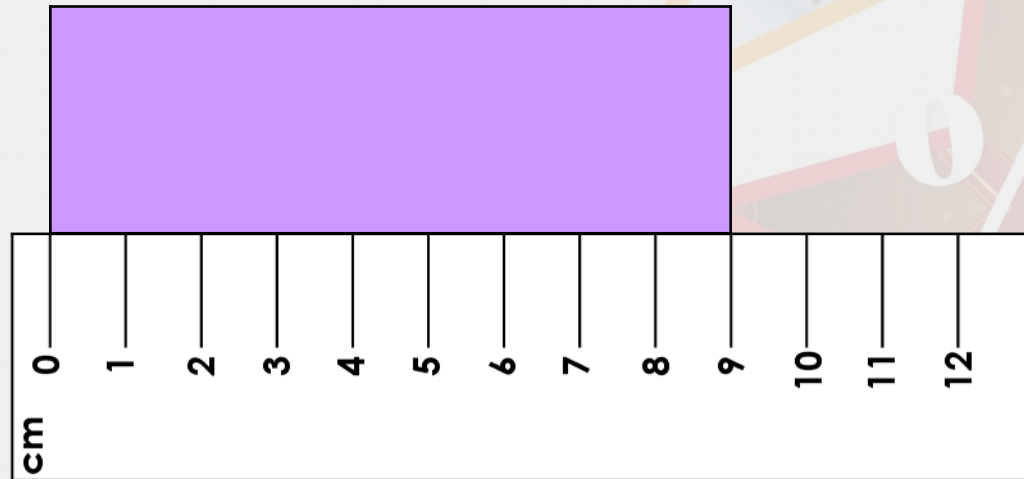


## Reasoning 1

Freya says,



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



Measure each side with a ruler.

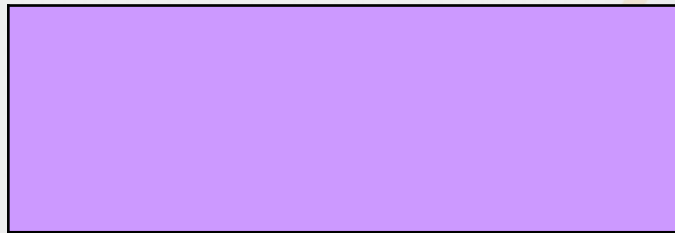


## Reasoning 1

Freya says,

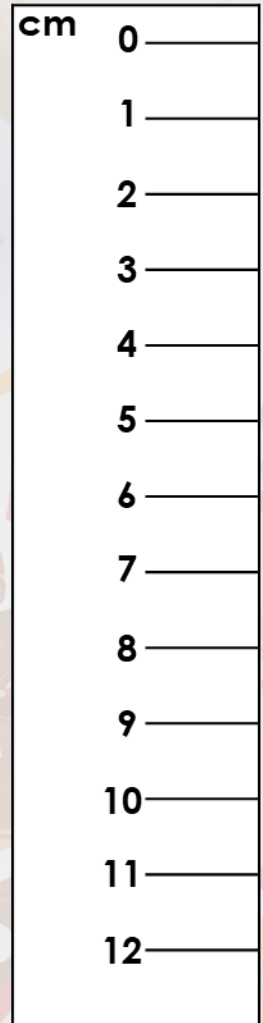


I used a ruler to measure the shape below. The perimeter is 12cm.



9cm

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

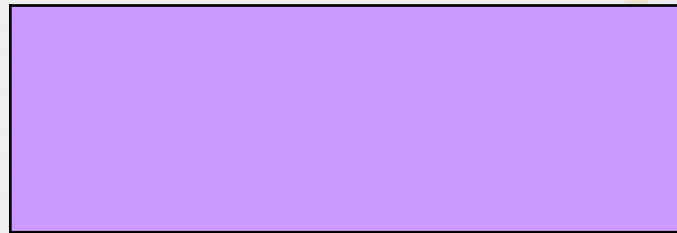


## Reasoning 1

Freya says,

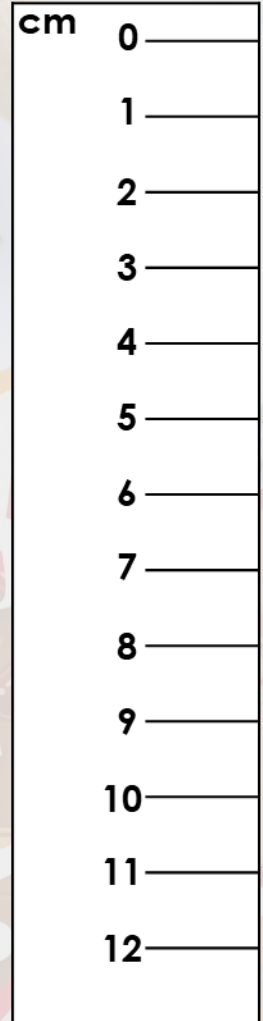


I used a ruler to measure the shape below. The perimeter is 12cm.



9cm

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

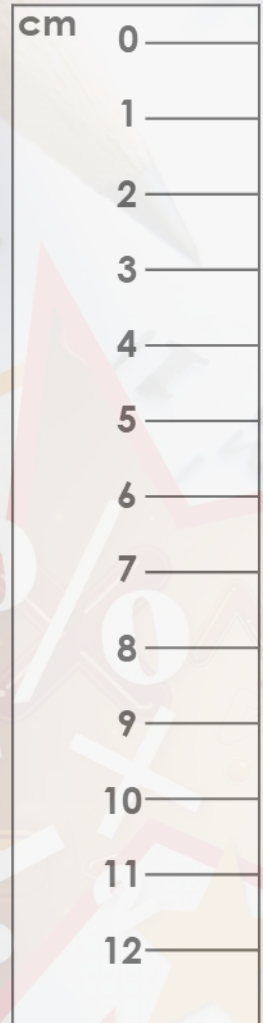
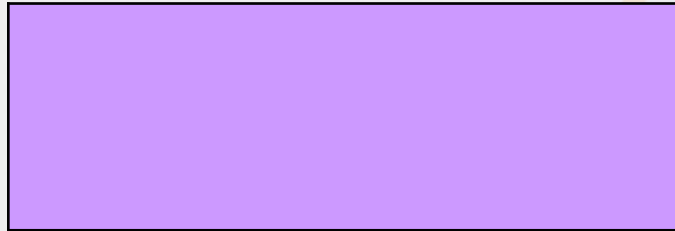


## Reasoning 1

Freya says,



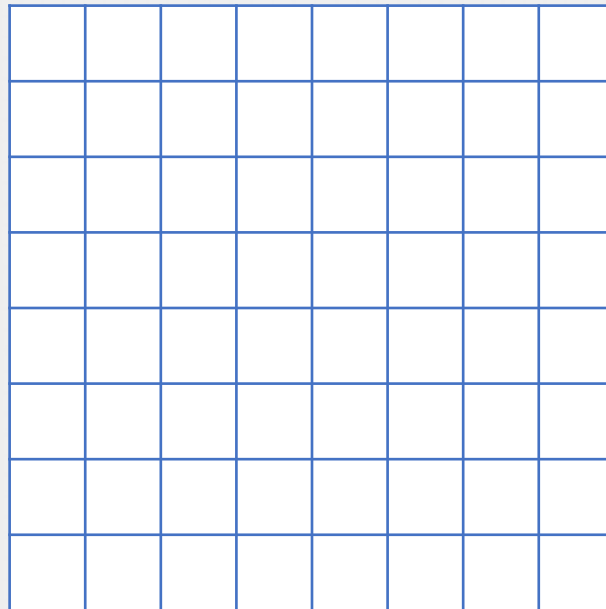
I used a ruler to measure the shape below. The perimeter is 12cm.



**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.**  
 **$9\text{cm} + 3\text{cm} + 9\text{cm} + 3\text{cm} = 24\text{ cm}$**

## Problem Solving 2

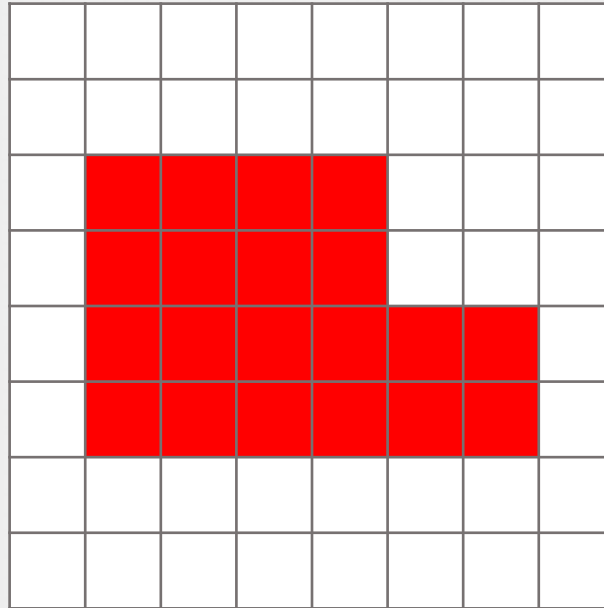
**On 1cm squared paper draw a 6-sided rectilinear shape with a perimeter that is more than 18cm and less than 22cm, and that is an even number.**





## 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:  
 $4\text{cm} + 2\text{cm} + 2\text{cm} + 2\text{cm} + 6\text{cm} + 4\text{cm} = 20\text{cm}$