

## Year 2/3 – Spring Block 4 – Length, Height and Perimeter – Step 7

### About This Resource:

This PowerPoint has been designed to support your teaching of this small step from the Mixed Age planning. It includes a starter activity suitable for each year group and an example of each question from the Varied Fluency and Reasoning and Problem Solving resources also provided in this pack (separate for each year group). Each slide has the year group identified in the bottom right-hand corner. We recommend that you look through this PowerPoint in advance and decide whether to work through all examples provided or a selection of them depending on the needs of your class.

### National Curriculum Objectives:

Mathematics Year 3: (3M1a) [Compare lengths \(m/cm/mm\)](#)

More [Year 2 and Year 3 Length, Height and Perimeter](#) resources.

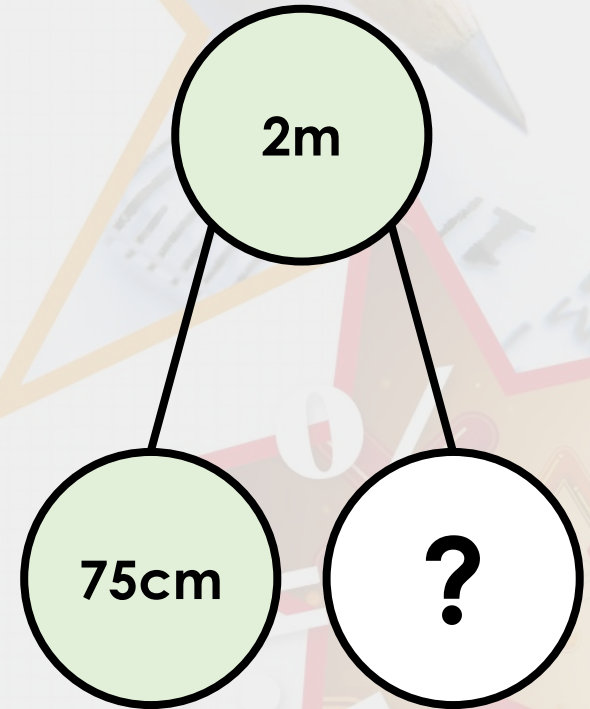
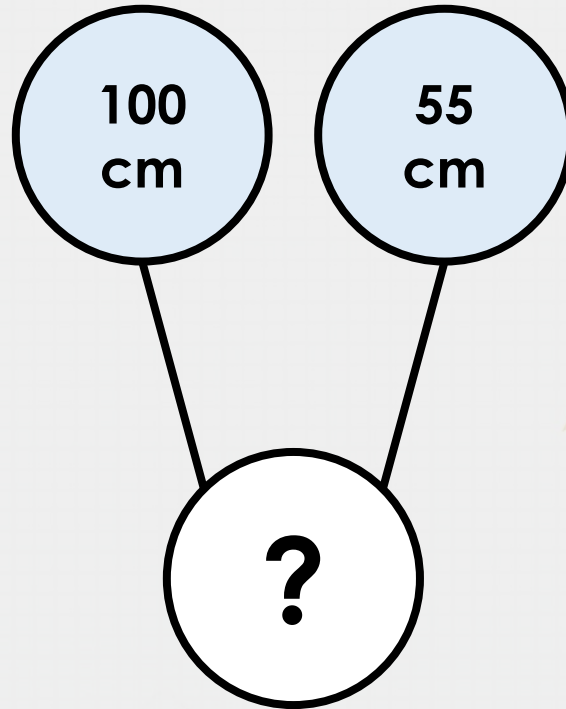
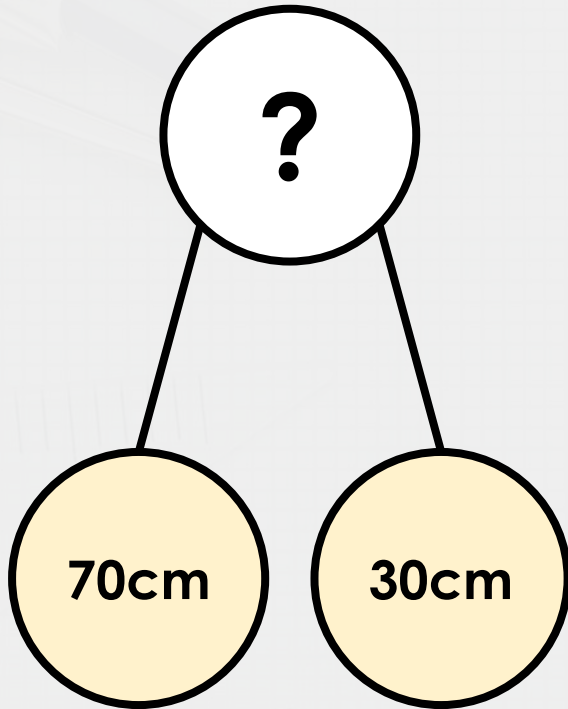
Did you like this resource? Don't forget to [review](#) it on our website.

# Step 7

## Year 3: Subtract Length

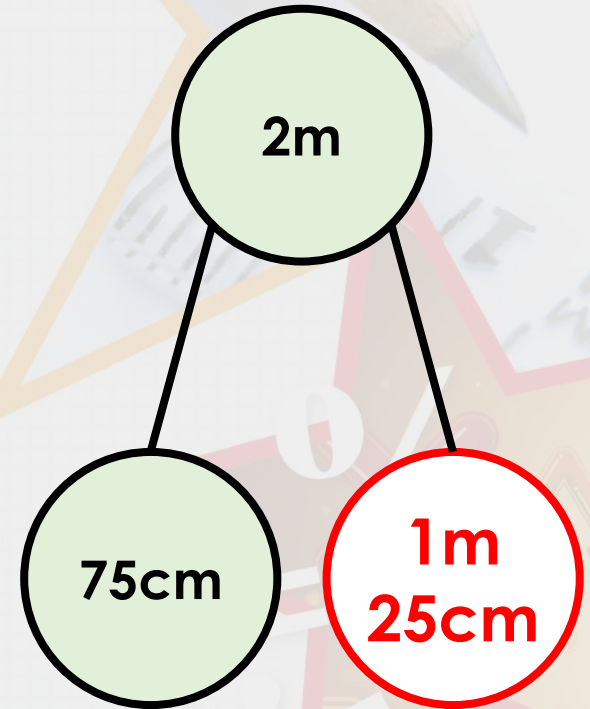
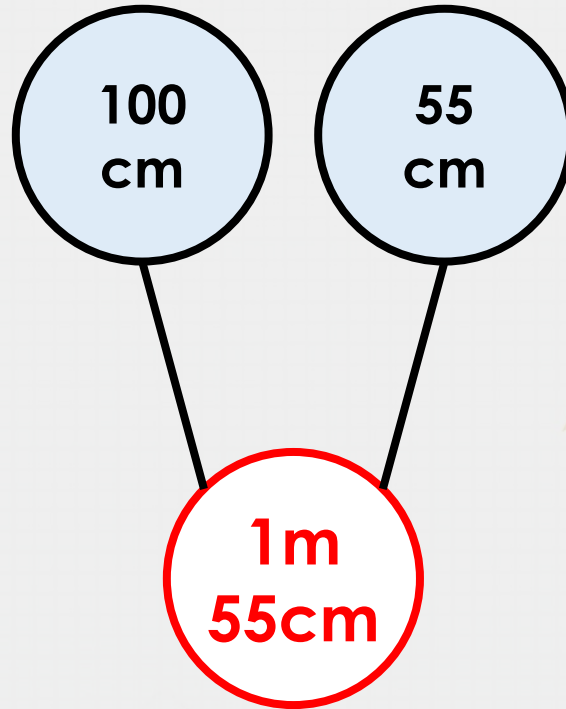
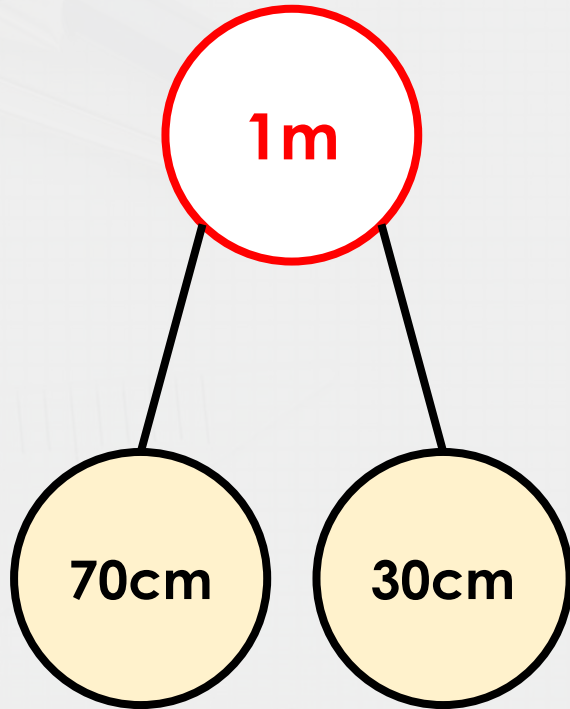
## Introduction

Complete the part whole models.



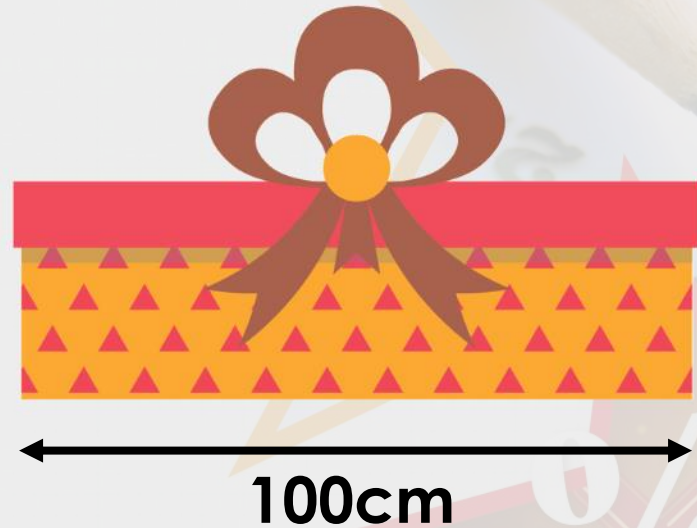
## Introduction

Complete the part whole models.



Varied Fluency 1

What is the difference in length of the following items?



A. 47cm

B. 57cm

C. 47mm

Not to scale

Varied Fluency 1

What is the difference in length of the following items?



A. 47cm

B. 57cm

C. 47mm

Not to scale

## Varied Fluency 2

**Mollie and Jacob are hanging a string of lights on Mollie's wall.**

**The wall is 1m 65cm long, the lights are 95cm long.**



**They will need more lights to reach the end of the wall.**

**True or false?**

## Varied Fluency 2

Mollie and Jacob are hanging a string of lights on Mollie's wall.

The wall is 1m 65cm long, the lights are 95cm long.



They will need more lights to reach the end of the wall.

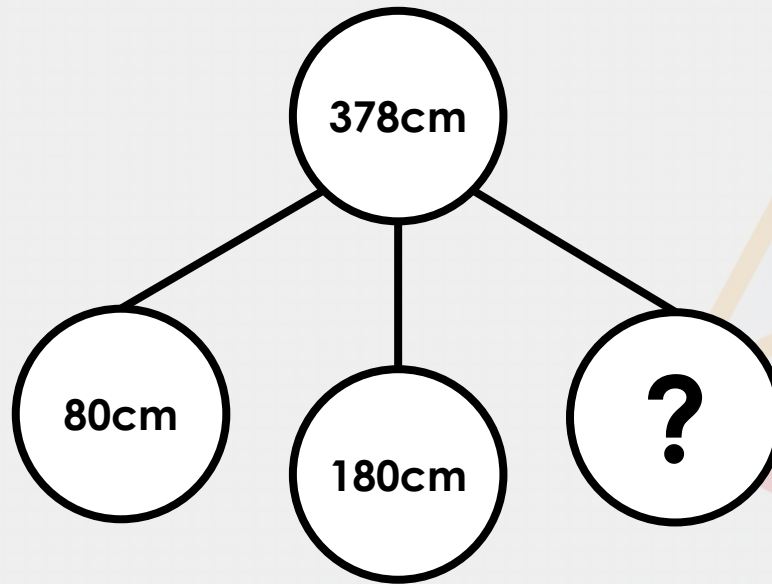
True or false?

**True. They will need another 70cm of lights to reach the end of the wall.**



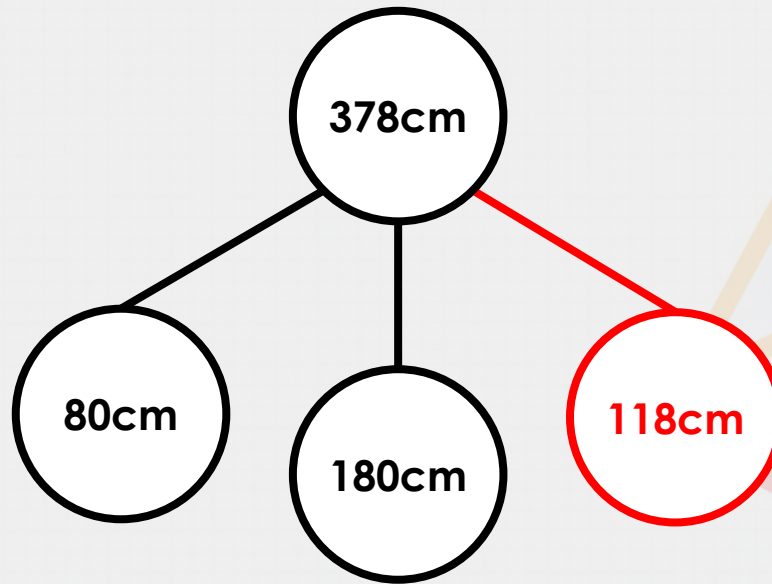
## Varied Fluency 3

Complete the part whole model.



### Varied Fluency 3

Complete the part whole model.



## Varied Fluency 4

Add  $<$ ,  $>$  or  $=$  to make the statement correct.

**5m 72cm – 98cm**

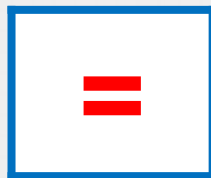


**480cm – 6cm**

## Varied Fluency 4

Add <, > or = to make the statement correct.

5m 72cm – 98cm



480cm – 6cm

## Reasoning 1

Tom has completed his homework.

<b>A.</b>	$4\text{m } 40\text{cm} - 340\text{cm} = 100\text{cm}$

<b>B.</b>	$350\text{cm} = 7\text{m} - 350\text{cm}$

<b>C.</b>	$1\text{m} - 90\text{cm} = 10\text{m}$

Find and explain his mistake.

## Reasoning 1

Tom has completed his homework.

<b>A.</b>	$4\text{m } 40\text{cm} - 340\text{cm} = 100\text{cm}$

<b>B.</b>	$350\text{cm} = 7\text{m} - 350\text{cm}$

<b>C.</b>	$1\text{m} - 90\text{cm} = 10\text{m}$

Find and explain his mistake.

Statement C is incorrect because...

## Reasoning 1

Tom has completed his homework.

<b>A.</b>	$4\text{m } 40\text{cm} - 340\text{cm} = 100\text{cm}$

<b>B.</b>	$350\text{cm} = 7\text{m} - 350\text{cm}$

<b>C.</b>	$1\text{m} - 90\text{cm} = 10\text{m}$

Find and explain his mistake.

**Statement C is incorrect because Tom has written the answer using the wrong unit of measurement;  $1\text{m} - 90\text{cm} = 10\text{cm}$ .**

## Problem Solving 1

Some Year 3 children are setting up the school fayre tables.



The length of the hall is 5m 85cm which is enough for two stalls.

The craft stall needs 238cm. The snack stall needs 3m 43cm.

How much space is left between the tables?



## Problem Solving 1

Some Year 3 children are setting up the school fayre tables.



The length of the hall is 5m 85cm which is enough for two stalls.

The craft stall needs 238cm. The snack stall needs 3m 43cm.

How much space is left between the tables?

$$238\text{cm} + 343\text{cm} = 581\text{cm}$$

$$585\text{cm} - 581\text{cm} = 4\text{cm}$$

There will be 4cm spare.

## Reasoning 2

Tia and Heather are discussing how to subtract 1cm 9mm from 20cm.



Tia

I converted both lengths to mm.  
 $200\text{mm} - 19\text{mm} = 181\text{mm}$

I converted both lengths to cm.  
 $20\text{cm} - 19\text{cm} = 1\text{cm}$



Heather

Who is correct? Explain why.

## Reasoning 2

Tia and Heather are discussing how to subtract 1cm 9mm from 20cm.



Tia

I converted both lengths to mm.  
 $200\text{mm} - 19\text{mm} = 181\text{mm}$

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Heather

Who is correct? Explain why.

Tia is correct because...

## Reasoning 2

Tia and Heather are discussing how to subtract 1cm 9mm from 20cm.



Tia

I converted both lengths to mm.  
 $200\text{mm} - 19\text{mm} = 181\text{mm}$

I converted both lengths to cm.  
 $20\text{cm} - 19\text{cm} = 1\text{cm}$



Heather

Who is correct? Explain why.

**Tia is correct because 20cm is the same 200mm and 1cm 9mm is the same as 19mm. Heather has made a mistake when converting.**