

# Varied Fluency

## Step 3: Equivalent Lengths-mm and cm

### National Curriculum Objectives:

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

Mathematics Year 3:(3M2a) [Measure lengths \(m/cm/mm\)](#)

### Differentiation:

**Developing** Questions to support converting from mm to cm and vice versa. Lengths in multiples of 10mm.

**Expected** Questions to support converting from mm to cm and vice versa. Lengths in increments of 1mm.

**Greater Depth** Questions to support converting from mm to cm and vice versa. Lengths in increments of 1mm, using 0 as a place holder in the tens columns for some lengths.

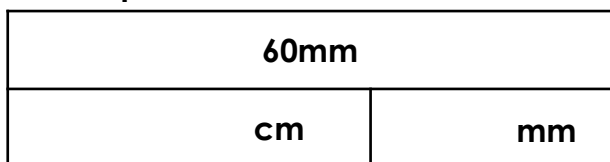
More [Year 2 and Year 3 Length, Height and Perimeter](#) Resources.

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

## Equivalent Lengths-mm and cm

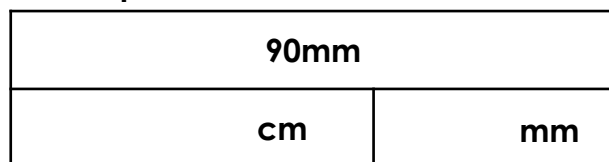
## Equivalent Lengths-mm and cm

1a. Complete the bar model.



3 VF

1b. Complete the bar model.



3 VF

2a. Join the equivalent lengths.

30mm	100mm
40mm	3cm
10cm	50mm
5cm 0mm	4cm



3 VF

2b. Join the equivalent lengths.

80mm	20mm
2cm	8cm 0mm
30cm	90mm
9cm 0mm	300mm



3 VF

3a. Circle the longest length.

5cm 10mm	60mm
80mm	8cm 10mm



3 VF

3b. Circle the shortest length.


2cm 0mm	300mm
30mm	4cm 0mm






3 VF

4a. Tick the insects that are the same length as the caterpillar below.

60mm




	60cm 6mm	
	6cm 10mm	
	6cm 0mm	






3 VF

4b. Tick the insects that are the same length as the worm below.

90mm



	7cm 10mm	
	9cm 0mm	
	19cm 0mm	



3 VF

## Equivalent Lengths-mm and cm

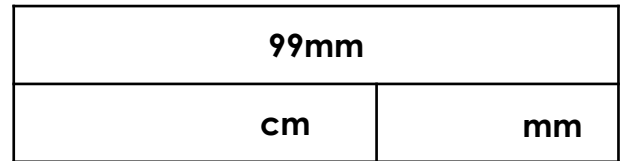
## Equivalent Lengths-mm and cm

5a. Complete the bar model.



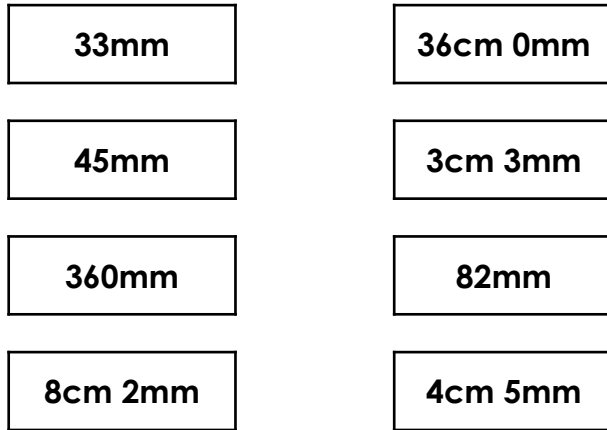
3 VF

5b. Complete the bar model.



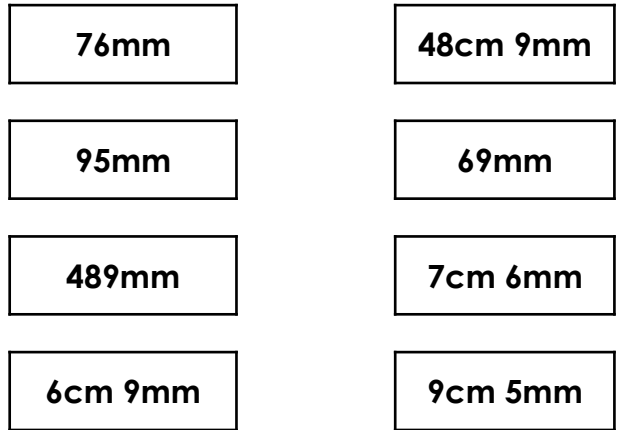
3 VF

6a. Join the equivalent lengths.



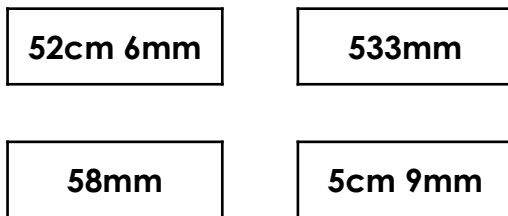
3 VF

6b. Join the equivalent lengths.



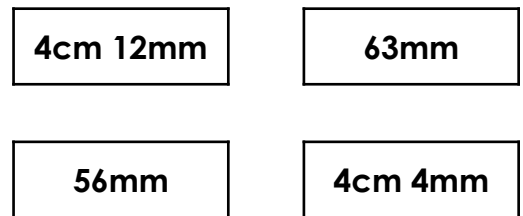
3 VF

7a. Circle the longest length.



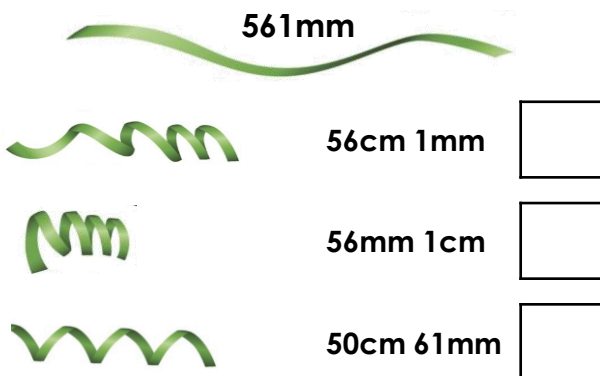
3 VF

7b. Circle the shortest length.



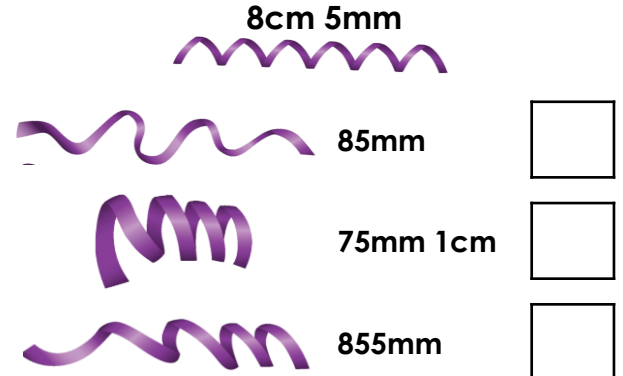
3 VF

8a. Tick the ribbons that are the same length as the one below.



3 VF

8b. Tick the ribbons that are the same length as the one below.

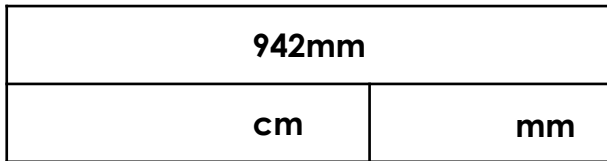


3 VF

## Equivalent Lengths-mm and cm

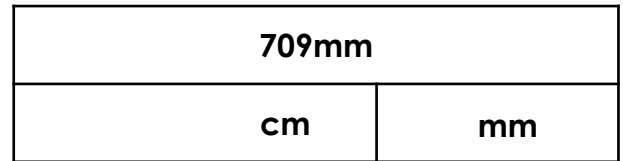
## Equivalent Lengths-mm and cm

9a. Complete the bar model.



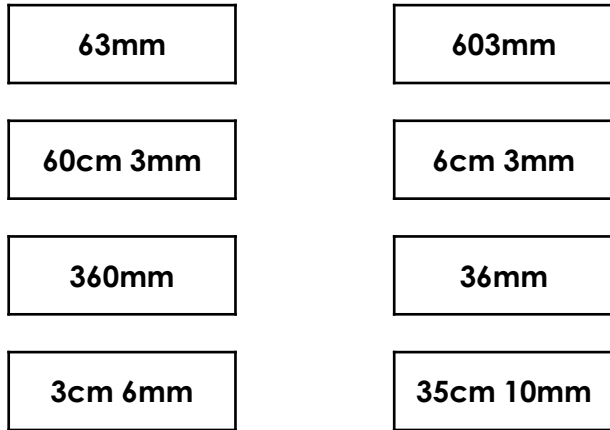
3 VF

9b. Complete the bar model.



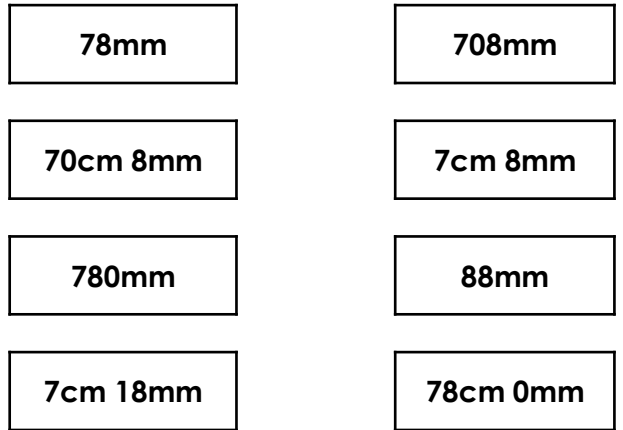
3 VF

10a. Join the equivalent lengths.



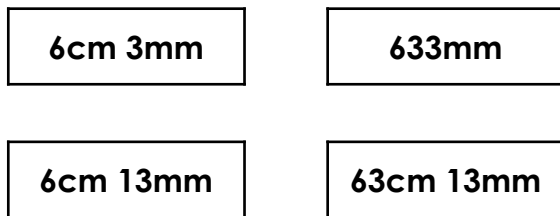
3 VF

10b. Join the equivalent lengths.



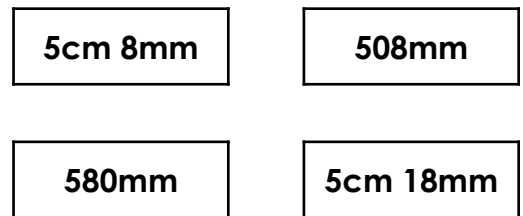
3 VF

11a. Circle the longest length.



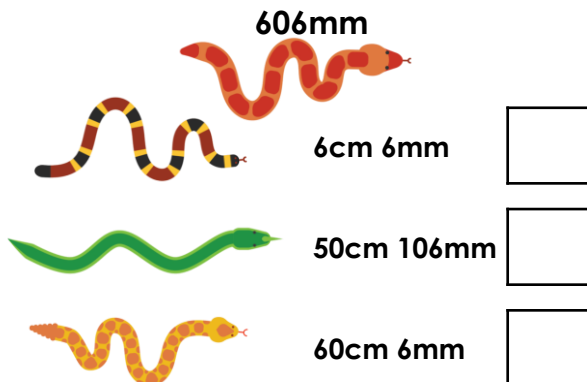
3 VF

11b. Circle the shortest length.



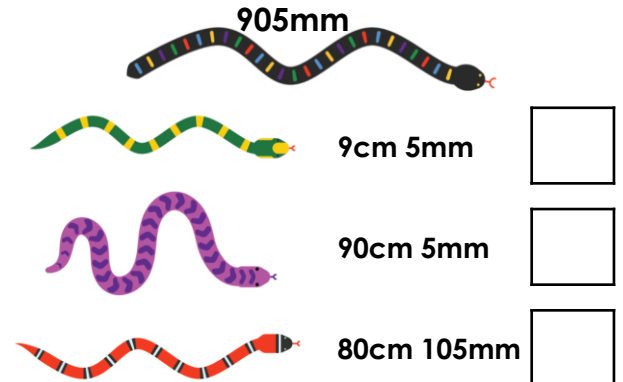
3 VF

12a. Tick the snakes that are the same length as the one below.



3 VF

12b. Tick the snakes that are the same length as the one below.



3 VF

**Varied Fluency**  
**Equivalent Lengths-mm and cm**

**Developing**

- 1a. Various possible answers, including:  
6cm 0mm, 5cm 10mm
- 2a. 30mm = 3cm  
40mm = 4cm  
10cm = 100mm  
5cm = 50mm
- 3a. 8cm 10mm
- 4a. 6cm 0mm

**Expected**

- 5a. Various possible answers, including:  
6cm 2mm, 5cm 12mm
- 6a. 33mm = 3cm 3mm;  
45mm = 4cm 5mm;  
360mm = 36cm 0mm;  
8cm 2mm = 82mm
- 7a. 533mm
- 8a. 56cm 1mm  
50cm 61mm

**Greater Depth**

- 9a. Various possible answers, including:  
94cm 2mm, 84cm 102mm
- 10a. 63mm = 6cm 3mm  
60cm 3mm = 603mm  
360mm = 35cm 10mm  
3cm 6cm = 36mm
- 11a. 63cm 13mm
- 12a. 60cm 6mm  
50cm 106mm

**Varied Fluency**  
**Equivalent Lengths-mm and cm**

**Developing**

- 1b. Various possible answers, including:  
9cm 0mm, 8cm 10mm
- 2b. 80mm = 8cm 0mm  
2cm = 20mm  
30cm = 300mm  
9cm 0mm = 90mm
- 3b. 2cm 0mm
- 4b. 9cm 0mm

**Expected**

- 5b. Various possible answers, including:  
9cm 9mm, 8cm 19mm
- 6b. 76mm = 7cm 6mm  
95mm = 9cm 5mm  
489cm = 48cm 9mm  
6cm 9mm = 69mm
- 7b. 4cm 4mm
- 8b. 85mm  
75mm 1cm

**Greater Depth**

- 9b. Various possible answers, including:  
70cm 9mm, 80cm 109mm
- 10b. 78mm = 7cm 8mm  
70cm 8mm = 708mm  
780mm = 78cm 0mm  
7cm 18mm = 88mm
- 11b. 5cm 8mm
- 12b. 90cm 5mm  
80cm 105mm