

Varied Fluency

Step 5: Add Lengths

National Curriculum Objectives:

Mathematics Year 3: (3M9b) [Add and subtract lengths \(m/ cm/ mm\)](#)

Differentiation:

Developing Questions to support adding lengths, using mixed units No exchanging. All units are in multiples of 5.

Expected Questions to support adding lengths, using some mixed units with only one conversion and some exchanging.

Greater Depth Questions to support adding lengths, using mixed units with exchanging. Questions require multiple conversions.

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

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

Add Lengths

1a. Some children threw bean bags and measured how far they had travelled.

Carla	1m 45cm	120cm
Maurice	210cm	85cm
Terri	120cm	1m 35cm

Which child had the largest total distance?



VF

Add Lengths

1b. Some children threw bean bags and measured how far they had travelled.

Ula	330cm	2m 55cm
Ishmael	250cm	1m 35cm
Lark	1m 65cm	4m 10cm

Which child had the largest total distance?



VF

2a. Complete the bar model.

_____ m _____ cm	
5m 10cm	125cm



VF

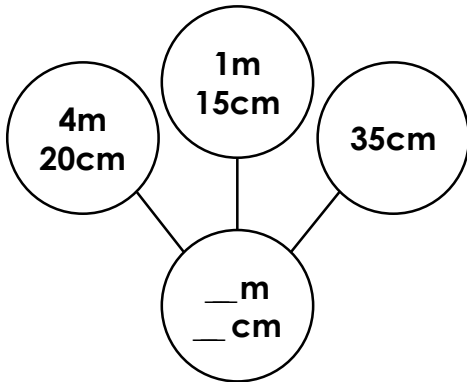
2b. Complete the bar model.

730cm	1m 15cm
_____ m _____ cm	



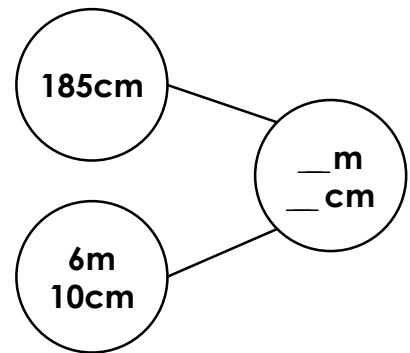
VF

3a. Complete the part-whole model.



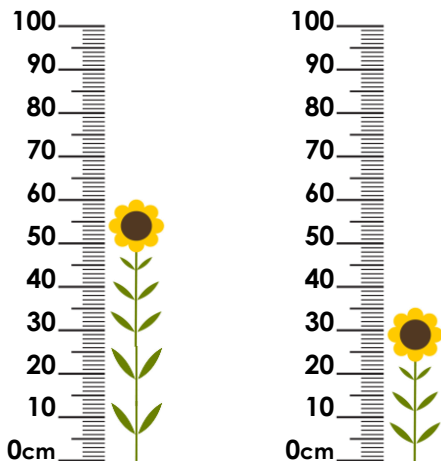
VF

3b. Complete the part-whole model.



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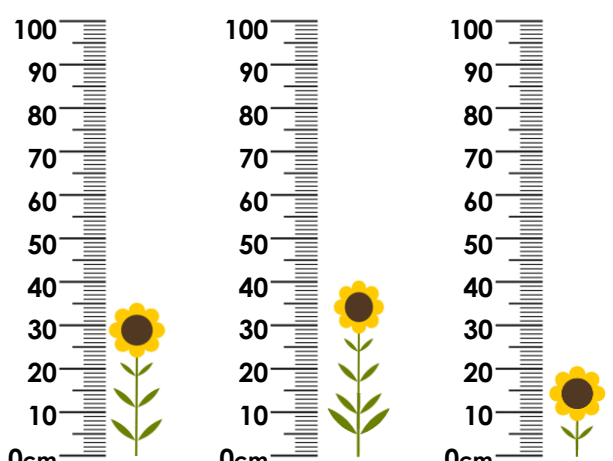
4a. Find the total height of the sunflowers.



Not drawn to scale

VF

4b. Find the total height of the sunflowers.



Not drawn to scale

VF

Add Lengths

5a. Some children threw tennis balls and measured how far they had travelled.

Lisa	1m 56cm	1m 50cm	210cm
Charles	365cm	8cm 2mm	220cm
Henry	1m 25cm	245cm	320cm

Which child had the largest total distance?



VF

Add Lengths

5b. Some children threw tennis balls and measured how far they had travelled.

Michelle	241cm	41cm 7mm	211cm
Bohuslav	3m 21cm	1m 05cm	120cm
Cerys	134cm	254cm	98cm 4mm

Which child had the largest total distance?



VF

6a. Complete the bar model.

?		
8mm	64mm	2cm 9mm



VF

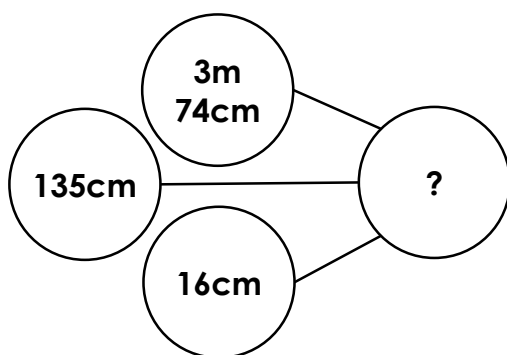
6b. Complete the bar model.

2m 53cm	326cm	73cm
?		



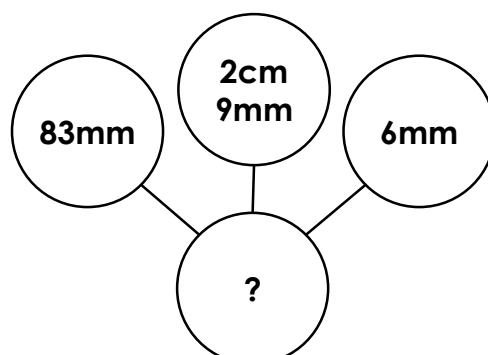
VF

7a. Complete the part-whole model.



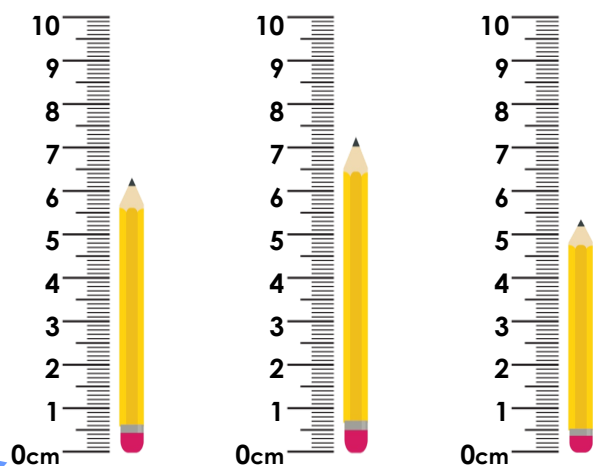
VF

7b. Complete the part-whole model.



VF

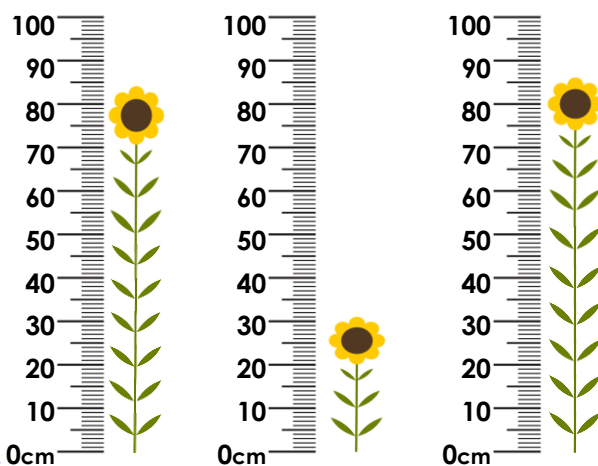
8a. Find the total length of the pencils.



Not drawn to scale

VF

8b. Find the total height of the sunflowers.



Not drawn to scale

VF

Add Lengths

9a. Some children threw frisbees and measured how far they had travelled.

Yasmin	1m 34cm	$\frac{3}{4}$ m	835mm
Paula	98cm 1mm	886mm	1m 07cm
James	$1\frac{1}{2}$ m	593mm	80cm 3mm

Which child had the largest total distance?



VF

Add Lengths

9b. Some children threw frisbees and measured how far they had travelled.

Lynda	1m 19cm	88cm 1mm	711mm
Gary	726mm	$1\frac{1}{2}$ m	81cm 4mm
Sammi	1m 54cm	1m 01cm	$1\frac{1}{4}$ m

Which child had the largest total distance?



VF

10a. Complete the bar model.

_____ m _____ cm _____ mm		
$\frac{1}{2}$ m 5cm	1m	286 mm



VF

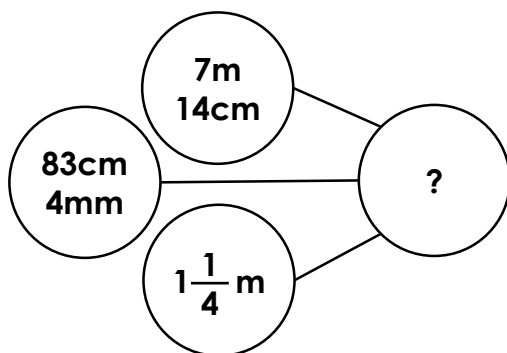
10b. Complete the bar model.

1m 35cm	134mm	$1\frac{1}{4}$ m
_____ m	_____ cm	_____ mm



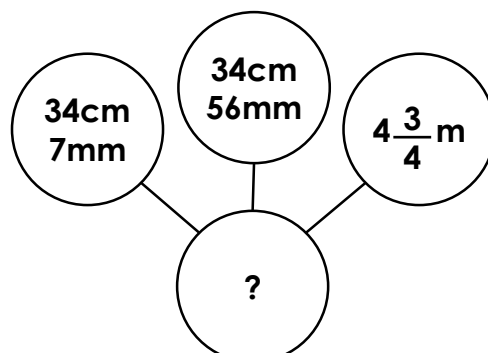
VF

11a. Complete the part-whole model.



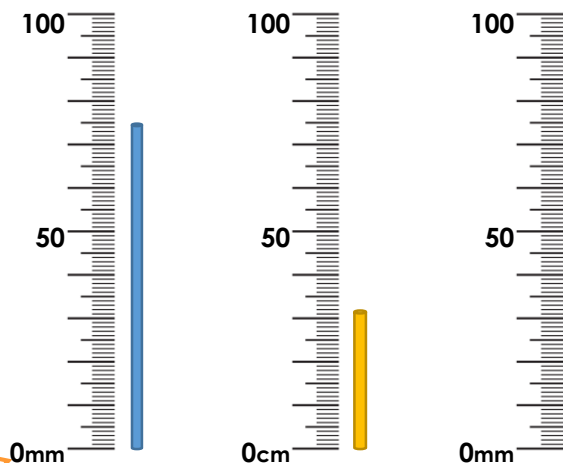
VF

11b. Complete the part-whole model.



VF

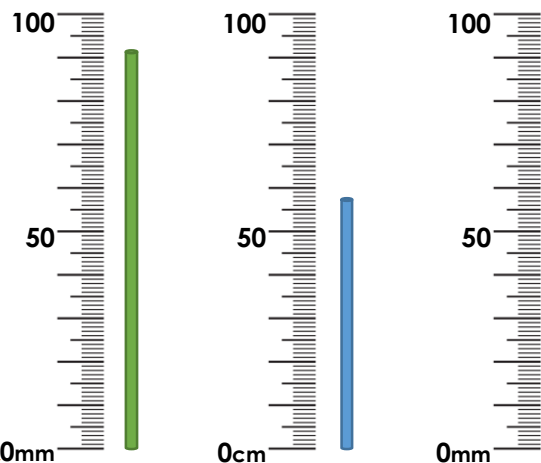
12a. Find the total length of the straws.



Not drawn to scale

VF

12b. Find the total length of the straws.



Not drawn to scale

VF

Varied Fluency Add Lengths

Developing

- 1a. Maurice, because Carla = 2m 65cm or 265cm; Terri = 2m 55cm or 255cm and Maurice = 2m 95cm or 295cm
2a. 6m 35cm or 635cm
3a. 5m 70cm
4a. 95cm (60cm + 35cm)

Expected

- 5a. Henry, because Lisa = 5m 16cm; Charles = 5m 93cm 2mm and Henry = 6m 90cm.
6a. 101mm or 10cm 1mm
7a. 5m 25cm or 525m
8a. 188mm or 18cm 8mm (63mm + 72mm + 53mm)

Greater Depth

- 9a. Paula, because Yasmin = 292cm 5mm; Paula = 293cm 7mm and James = 289cm 6mm.
10a. 1m 83cm 6mm
11a. 9m 22cm 4mm or 9m 224mm
12a. 456mm or 45cm 6mm (75mm + 32cm + 61mm)

Varied Fluency Add Lengths

Developing

- 1b. Ula, because Ula = 5m 85cm or 585cm; Ishmael = 3m 85cm or 385cm and Lark = 5m 75cm or 575cm.
2b. 845cm or 8m 45cm
3b. 7m 95cm or 795cm
4b. 95cm (35cm + 40cm + 20cm)

Expected

- 5b. Bohuslav, because Michelle = 4m 93cm 7mm; Bohuslav = 5m 46cm and Cerys = 4m 86cm 4mm
6b. 652cm or 6m 52cm
7b. 118mm or 11cm 8mm
8b. 201cm or 2m 1cm (84mm + 31mm + 86mm)

Greater Depth

- 9b. Sammi, because Lynda = 278cm 2mm; Gary = 304cm and Sammi = 380cm
10b. 2m 73cm 4mm
11b. 5m 49cm 3mm or 5m 493mm
12b. 744mm or 74cm 4mm (92mm + 58cm + 72mm)