

Varied Fluency

Step 6: Add Lengths

National Curriculum Objectives:

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

Differentiation:

Developing Questions to support adding two lengths, using mixed units and direct conversions (cm to m) No exchanging. i.e. $32\text{cm} + 8\text{m}$ 12cm .

Expected Questions to support adding 2 or 3 lengths, using some mixed units with only one conversion and some exchanging, i.e. $2\text{m} + 1\text{m}$ $54\text{cm} + 38\text{cm}$.

Greater Depth Questions to support adding 3 or 4 lengths, using mixed units with indirect conversions (mm to m) and some exchanging. Questions require multiple conversions, i.e. $2\text{m} + 1\text{m}$ $50\text{cm} + 150\text{mm}$.

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.

Add Lengths

1a. Which two pieces of ribbon add together to make 2m 16cm?

Ribbon	Length
Pink	1m 2cm
White	110cm
Orange	1m 8cm
Green	1m 6cm



3 VF

Add Lengths

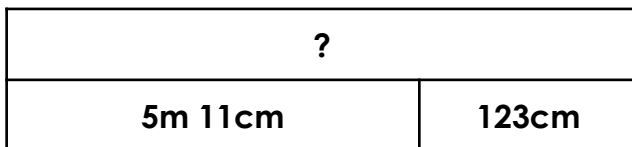
1b. Which two pieces of ribbon add together to make 7m 34cm?

Ribbon	Length
Yellow	5m 12cm
Purple	2m 6cm
Black	431cm
Silver	3m 3cm



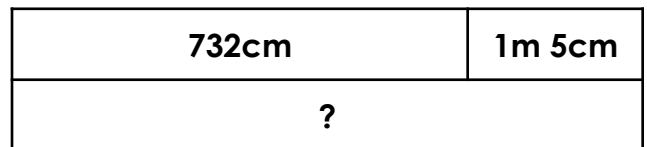
3 VF

2a. Complete the bar model.



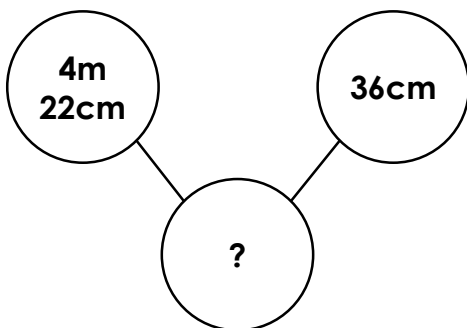
3 VF

2b. Complete the bar model.



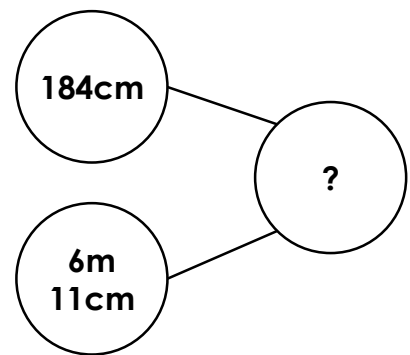
3 VF

3a. Complete the part whole model.



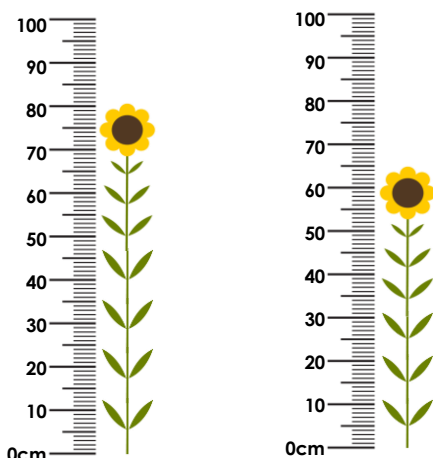
3 VF

3b. Complete the part whole model.



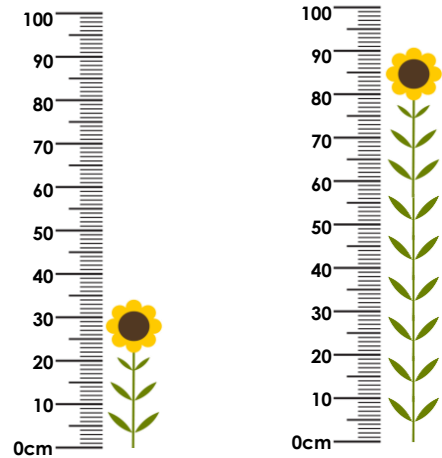
3 VF

4a. Find the total height of the sunflowers.



3 VF

4b. Find the total height of the sunflowers.



3 VF

Add Lengths

5a. Which three pieces of ribbon add together to make 1m 23cm?

Ribbon	Length
Blue	74cm
Yellow	10cm
Green	39cm
Orange	1m 13cm
Silver	106cm



3 VF

Add Lengths

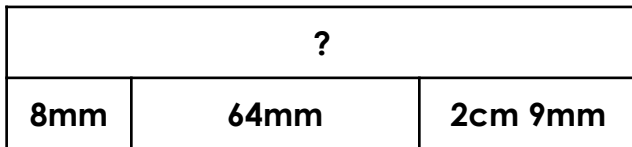
5b. Which three pieces of ribbon add together to make 26cm 1mm?

Ribbon	Length
White	38mm
Red	4cm 3mm
Purple	7mm
Black	18cm
Gold	26mm



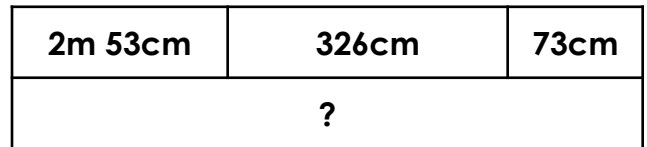
3 VF

6a. Complete the bar model.



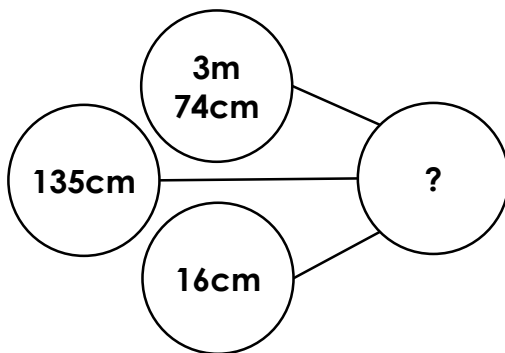
3 VF

6b. Complete the bar model.



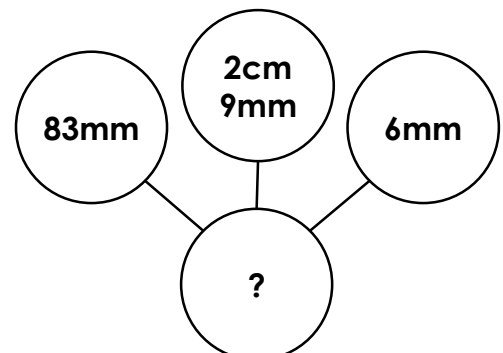
3 VF

7a. Complete the part whole model.



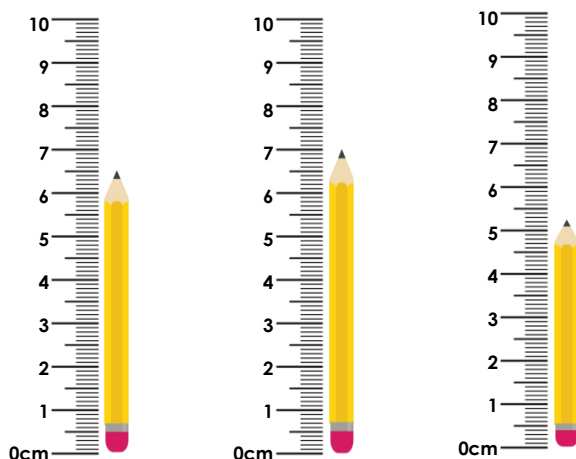
3 VF

7b. Complete the part whole model.



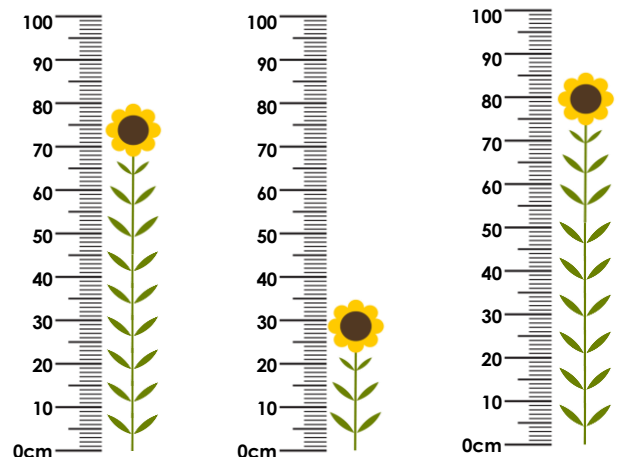
3 VF

8a. Find the total length of the pencils.



3 VF

8b. Find the total height of the sunflowers.



3 VF

Add Lengths

9a. Which three pieces of ribbon add together to make 3m 36cm?

Ribbon	Length
Orange	3m 11cm
Lilac	83mm
Pink	23cm 4mm
Silver	16mm
White	174mm



3 VF

Add Lengths

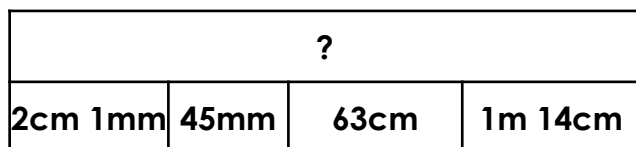
9b. Which three pieces of ribbon add together to make 2m 43cm?

Ribbon	Length
Blue	76cm 3mm
Green	532mm
Black	98cm 5mm
Gold	163cm
Purple	37mm



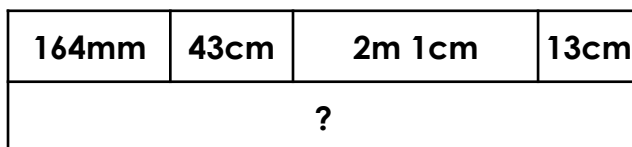
3 VF

10a. Complete the bar model.



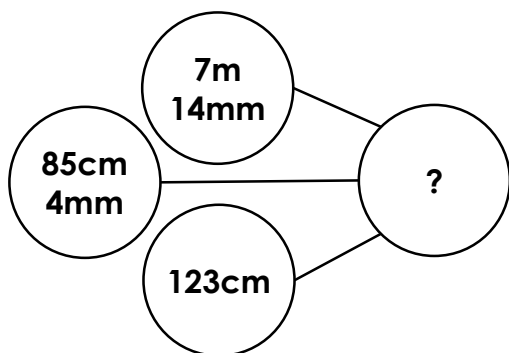
3 VF

10b. Complete the bar model.



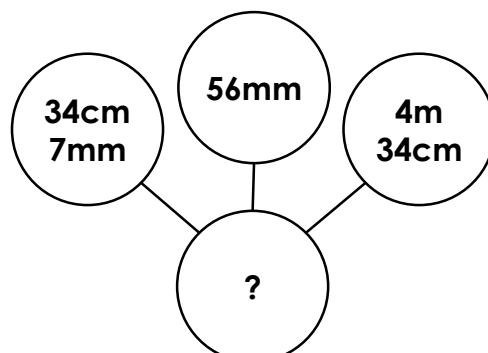
3 VF

11a. Complete the part whole model.



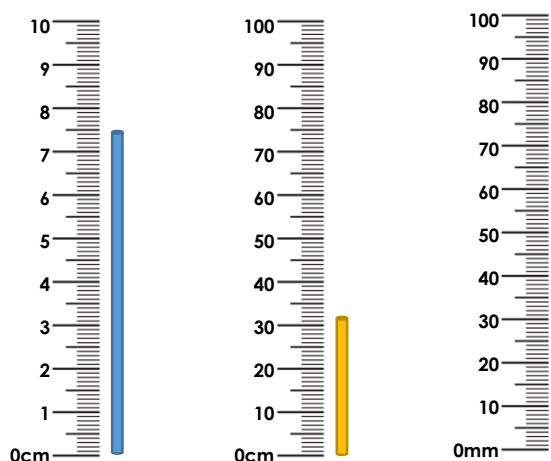
3 VF

11b. Complete the part whole model.



3 VF

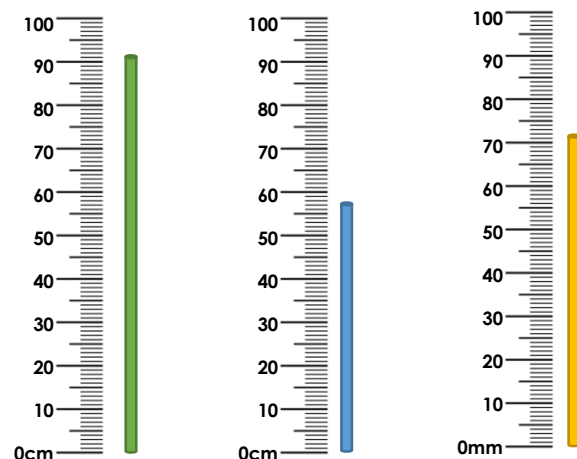
12a. Find the total length of the straws.



Not to scale

3 VF

12b. Find the total length of the straws.



Not to scale

3 VF

Varied Fluency Add Lengths

Developing

- 1a. white and green
- 2a. 6m 34cm or 634cm
- 3a. 458cm or 4m 58cm
- 4a. 146cm or 1m 46cm

Expected

- 5a. blue, yellow and green
- 6a. 101mm or 10cm 1mm
- 7a. 5m 25cm or 525m
- 8a. 187mm or 18cm 7mm

Greater Depth

- 9a. orange, pink and silver
- 10a. 183 cm 6mm or 1m 83cm 6mm or 1,836mm
- 11a. 9m 98mm or 9,098mm or 9m 9cm 8mm
- 12a. 456mm or 45cm 6mm

Varied Fluency Add Lengths

Developing

- 1b. black and silver
- 2b. 837cm or 8m 37cm
- 3b. 7m 95cm or 795cm
- 4b. 1m 25cm or 125cm

Expected

- 5b. white, red and black
- 6b. 652cm or 6m 52cm
- 7b. 118mm or 11cm 8mm
- 8b. 201cm or 2m 1cm

Greater Depth

- 9b. blue, gold and purple
- 10b. 273cm 4mm or 2m 73cm 4mm or 2,734mm
- 11b. 4,743mm or 4m 74cm 3mm
- 12b. 1,572mm or 1m 57cm 2mm