

# Varied Fluency

## Step 4: Compare Lengths

### National Curriculum Objectives:

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

### Differentiation:

**Developing** Questions to support comparing two lengths where the units of measurement are mm and cm and only multiples of 10 are used.

**Expected** Questions to support comparing three lengths where the units of measurement are mm and cm or m and only multiples of 10 are used; or where the units of measurement are cm and m and only multiples of 5 and 10 are used.

**Greater Depth** Questions to support comparing up to four lengths where the units of measurement are mm and cm or m and only multiples of 10 are used; or where the units of measurement are cm and m and any number can be used.

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

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## Compare Lengths

1a. True or false? Filip's piece of ribbon is longer.

Filip	10cm 90mm
Mia	20cm 10mm



3 VF

## Compare Lengths

1b. True or false? Mariam's piece of string is shorter.

Mariam	10cm 80mm
George	10cm 60mm



3 VF

2a. Two children measure around their heads.



Jan  
30cm 10mm



Fatima  
20cm 90mm

- A) Who has the smaller head?  
B) Who has the bigger head?



3 VF

2b. Two children measure their height.



Faisal  
140cm 20mm



Mei  
130cm 90mm

- A) Who is the shorter?  
B) Who is the taller?



3 VF

3a. Order these lengths from shorter to longer.

A	60cm 30mm
B	50cm 100mm



3 VF

3b. Order these lengths from longer to shorter.

A	40cm 80mm
B	50cm 10mm



3 VF

4a. Two children measure the length of their feet. Order them from shorter to longer. Use the < symbol in your ordering.



Olivia  
10cm  
70mm



Li Jie  
10cm  
60mm



3 VF

4b. Two children measure their handspan. Order them from wider to narrower. Use the > symbol in your ordering.



Aleks  
10cm  
10mm



Bushra  
10cm  
40mm



3 VF

## Compare Lengths

5a. True or false? Ruby's piece of string is the shortest.

Ruby	108cm
Jakub	1m 5cm
Fozia	110cm 30mm



3 VF

## Compare Lengths

5b. True or false? Zain's piece of ribbon is the longest.

James	1m 95cm
Anna	120cm 50mm
Zain	135cm



3 VF

6a. Three children measure their height.



Cheng  
1m 40cm



Grace  
145cm



Oliver  
120cm 30mm

- A) Who is the tallest?  
B) Who is the shortest?  
C) Who is taller than Oliver?



3 VF

6b. Three children measure around their heads.



Zara  
30cm



Ali  
30cm 10mm



Lucy  
20cm 90mm

- A) Who has the smallest head?  
B) Who has the biggest head?  
C) Who has a smaller head than Ali?



3 VF

7a. Order these lengths from longest to shortest.

A	2m 155cm
B	305cm
C	2m 190mm



3 VF

7b. Order these lengths from shortest to longest.

A	315cm
B	2m 140mm
C	2m 175cm



3 VF

8a. Three children measure their handspan. Order them from narrowest to widest. Use the < symbol in your ordering.



Jan  
10cm  
40mm



Alisha  
10cm  
50mm



Stan  
0cm  
130mm



3 VF

8b. Three children measure the length of their feet. Order them from longest to shortest. Use the > symbol in your ordering.



Alice  
0cm  
140mm



Filip  
10cm  
20mm



Anika  
10cm  
10mm



3 VF

## Compare Lengths

9a. True or false? Hamid's piece of ribbon is the longest.

Imani	2m 16cm
Hamid	239cm
Ellie	1m 143cm
Adam	2m 190mm



3 VF

## Compare Lengths

9b. True or false? Julia's piece of string is the shortest.

Sultan	3m 250mm
Julia	374cm
Jordan	2m 206cm
Olivia	261cm 210mm



3 VF

10a. Three children measure around their heads.



Paulina

17cm 120mm



Jojo

26cm



Amelia

17cm 80mm

- A) Who has the biggest head?  
 B) Who has the smallest head?  
 C) Whose head is bigger than Jojo's?



3 VF

10b. Three children measure their height.



Adrian

115cm 90mm



Lydia

1m 410mm



Thomas

1m 23cm

- A) Who is the shortest?  
 B) Who is the tallest?  
 C) Who is shorter than Lydia?



3 VF

11a. Order these lengths from shortest to longest.

A	284cm 640mm
B	2m 158cm
C	303cm
D	2m 910mm



3 VF

11b. Order these lengths from longest to shortest.

A	2m 150cm
B	303cm
C	2m 830mm
D	257cm 720mm



3 VF

12a. Four children measure the length of their feet. Order them from shortest to longest. Use the < symbol in your ordering.



Dawid

3cm  
120mm



Hana

10cm  
30mm



Arlo

15cm  
10mm



Isma

1cm  
130mm



3 VF

12b. Four children measure their handspan. Order them from widest to narrowest. Use the > symbol in your ordering.



Natalia

12cm  
40mm



Hasan

9cm  
30mm



Lexi

0cm  
150mm



Oliver

2cm  
110mm



3 VF

## Varied Fluency Compare Lengths

### Developing

- 1a. False, it is shorter.  
2a. A) Fatima, B) Jan  
3a. B 50cm 100mm, A 60cm 30mm  
4a. Li Jie 10cm 60mm < Olivia 10cm 70mm

### Expected

- 5a. False, Jakub's is the shortest.  
6a. A) Grace, B) Oliver, C) Grace & Cheng  
7a. A 2m 155cm, B 305cm, C 2m 190mm  
8a. Stan 0cm 130mm < Jan 10cm 40mm < Alisha 10cm 50mm

### Greater Depth

- 9a. False, Ellie's is the longest.  
10a. A) Paulina, B) Amelia, C) Paulina  
11a. D 2m 910mm, C 303cm, A 248cm 64mm, B 2m 158cm  
12a. Hana 10cm 30mm < Isma 1cm 130mm < Dawid 3cm 120mm < Arlo 15cm 10mm

## Varied Fluency Compare Lengths

### Developing

- 1b. False, it is longer.  
2b. A) Mei, B) Faisal  
3b. B 50cm 10mm, A 40cm 80mm  
4b. Bushra 10cm 40mm > Aleks 10cm 10mm

### Expected

- 5b. False, James' is longest.  
6b. A) Lucy, B) Ali, C) Zara & Lucy  
7b. B 2m 140mm, A 315cm, C 2m 175cm  
8b. Alice 0cm 140mm > Filip 10cm 20mm > Anika 10cm 10mm

### Greater Depth

- 9b. False, Olivia's is the shortest.  
10b. A) Thomas, B) Lydia, C) Adrian & Thomas  
11b. A 2m 150cm, D 257cm 720mm, B 303cm, C 2m 830mm  
12b. Natalia 12cm 40mm > Lexi 0cm 150mm > Oliver 2cm 110mm > Hasan 9cm 30mm