

# Varied Fluency

## Step 5: Four Operations with Lengths

### National Curriculum Objectives:

Mathematics Year 2: (2M1) [Compare and order lengths, mass, volume/capacity and record the results using >, < and =](#)

Mathematics Year 2: (2M2) [Choose and use appropriate standard units to estimate and measure length/height in any direction \(m/cm\); mass \(kg/g\); temperature \(° C\); capacity \(litres/ml\) to the nearest appropriate unit using rulers, scales, thermometers and measuring vessels](#)

### Differentiation:

**Developing** Questions to support adding, subtracting, doubling and halving of measures; same measures only.

**Expected** Questions to support adding, subtracting, multiplying and dividing of measures by 2, 5, 10; same measures only.

**Greater Depth** Questions to support adding, subtracting, multiplying and dividing of measures by 2, 5, 10; mixed measures (m and cm).

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

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

## Four Operations with Lengths

1a. Ali has a tower that is 40cm long. Kate's tower is double the length of Ali's. Circle how long Kate's tower is.



20cm

80cm

70cm



Not to scale

VF

## Four Operations with Lengths

1b. Kobie has a pencil that is 20cm long. Ty's pencil is half the size of Kobie's. Circle how long Ty's pencil is.



10cm

20cm

24cm



Not to scale

VF

2a. True or false? The shortest animal is 15cm shorter than the tallest animal.



30cm



23cm



15cm



Not to scale

VF

2b. True or false? The tallest flower is 30cm taller than the smallest flower.



40cm



10cm



30cm



Not to scale

VF

3a. The bridge is 20m long.



If half of the bridge falls down, how long will the bridge be?



Not to scale

VF

3b. The rocket is 50m tall.



How tall would it be if it doubled in height?



Not to scale

VF

4a. Which two objects added together total 40cm?



snake  
25cm



ruler  
10cm



watch  
15cm



Not to scale

VF

4b. Which two objects added together total 50cm?



Golf club  
35cm



hot dog  
15cm



boot  
25cm



Not to scale

VF

## Four Operations with Lengths

5a. Sam has a pencil that is 30cm long. Troy's pencil is 5 times shorter than Sam's. Circle how long Troy's pencil is.



6cm

25cm

10cm

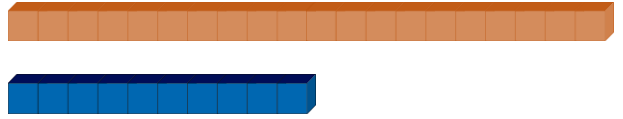


Not to scale

VF

## Four Operations with Lengths

5b. Rex has a tower that is 10cm long. Liz's tower is 2 times longer than Rex's. Circle how long Liz's tower is.



12cm

22cm

20cm



Not to scale

VF

6a. True or false? The tallest flower is 12cm taller than the shortest flower.



22cm

13cm

26cm



Not to scale

VF

6b. True or false? The shortest bottle is 14cm shorter than the tallest bottle.



26cm

14cm

28cm



Not to scale

VF

7a. The tree is 17m tall.



How tall will it be if it grows double in height?



Not to scale

VF

7b. The building is 21m tall.



How tall would it be if it doubled in height?



Not to scale

VF

8a. Which two objects added together total 70cm?



train  
39cm



keyboard  
31cm



car  
15cm



Not to scale

VF

8b. Which two objects added together total 60cm?



shoe  
18cm



bike  
32cm



rocket  
42cm



Not to scale

VF

## Four Operations with Lengths

9a. Ash has a tower that is 1m long. Daisy's tower is double in size. Circle how long Daisy's tower is.



200cm

50cm

100cm



Not to scale

VF

## Four Operations with Lengths

9b. Paige has a boat that is 2m long. Hettie's is half the size of Paige's. Circle how long Hettie's boat is.



200cm

50cm

100cm



Not to scale

VF

10a. True or false? The tallest tree is 3m taller than the shortest tree.



500cm



300cm



6m



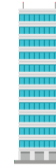
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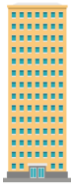
10b. True or false? The shortest building is 7m shorter than the tallest building.



10m



700cm



8m



Not to scale

VF

11a. The train is 4m long.



How long in centimetres will it be if it doubles in length?



Not to scale

VF

11b. The lorry is 200cm tall.



How tall in metres would it be if it doubled in height?



Not to scale

VF

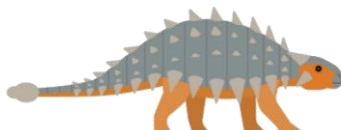
12a. Which two objects added together total 7m?



rod  
200cm



crocodile  
300cm



dinosaur  
4m



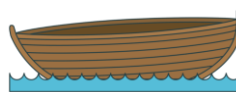
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12b. Which two objects added together total 900cm?



net  
1m



boat  
500cm



car  
4m



Not to scale

VF

Varied Fluency  
Four Operations with Lengths

Developing

- 1a. 80cm
- 2a. True
- 3a. 10m
- 4a. Snake and Watch

Expected

- 5a. 6cm
- 6a. False. ( $26 - 13 = 13$ ).
- 7a. 34m
- 8a. Train and Keyboard

Greater Depth

- 9a. 200cm
- 10a. True
- 11a. 800cm
- 12a. Dinosaur and Crocodile

Varied Fluency  
Four Operations with Lengths

Developing

- 1b. 10cm
- 2b. True
- 3b. 100m
- 4b. Golf club and Hot dog

Expected

- 5b. 20cm
- 6b. True
- 7b. 42m
- 8b. Shoe and Rocket

Greater Depth

- 9b. 100cm
- 10b. False.  $700\text{m} = 7\text{m}$ . ( $10\text{m} - 7\text{m} = 3\text{m}$ ).
- 11b. 4m
- 12b. Boat and Car