

## Session 1 Reasoning Activities

1. Follow the steps to answer the below question. If you can, try the question on your own first.

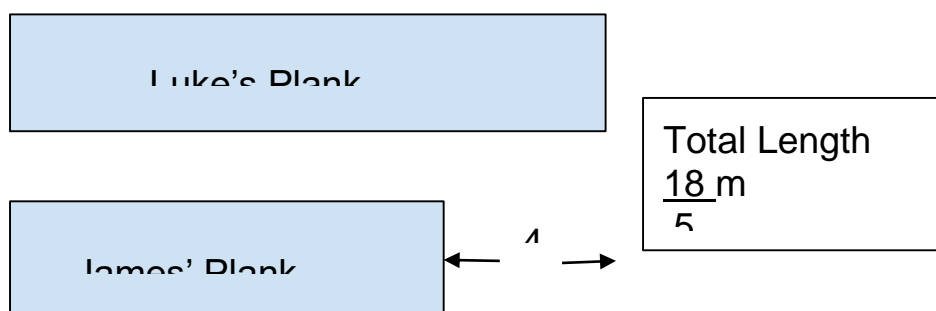
James and Luke have a plank of wood each.

James' plank is  $\frac{4}{5}$ m shorter than Luke's.

The planks are  $\frac{18}{5}$  m altogether.

How long is each plank?

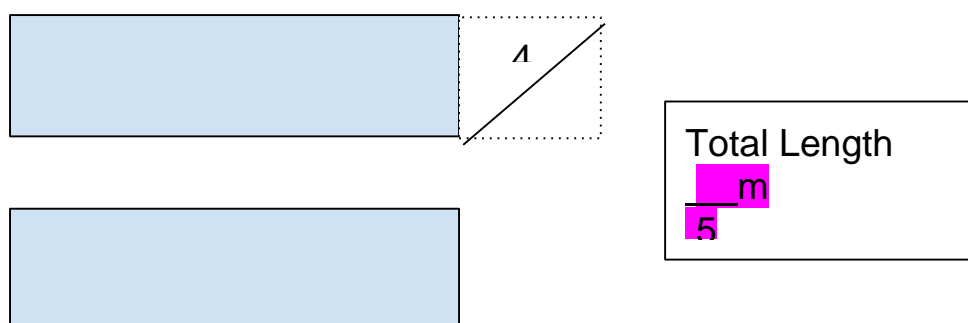
Step 1:



We want to make both bars the same length to help us answer this question.

First, you need to subtract the difference in length.

$$\frac{18}{5}m - \frac{4}{5}m = \frac{\boxed{14}}{5}m$$



Step 2:

Now that the two bars are the same length, you can work out what the length of one of the bars is.

$$\frac{1}{5}m = \frac{1}{5}m + \frac{1}{5}m$$

Step 3: Remember to add the  $\frac{4}{5}$ m back on to find the length of Luke's plank.

**2. Now use what you have just practised to answer this question.**

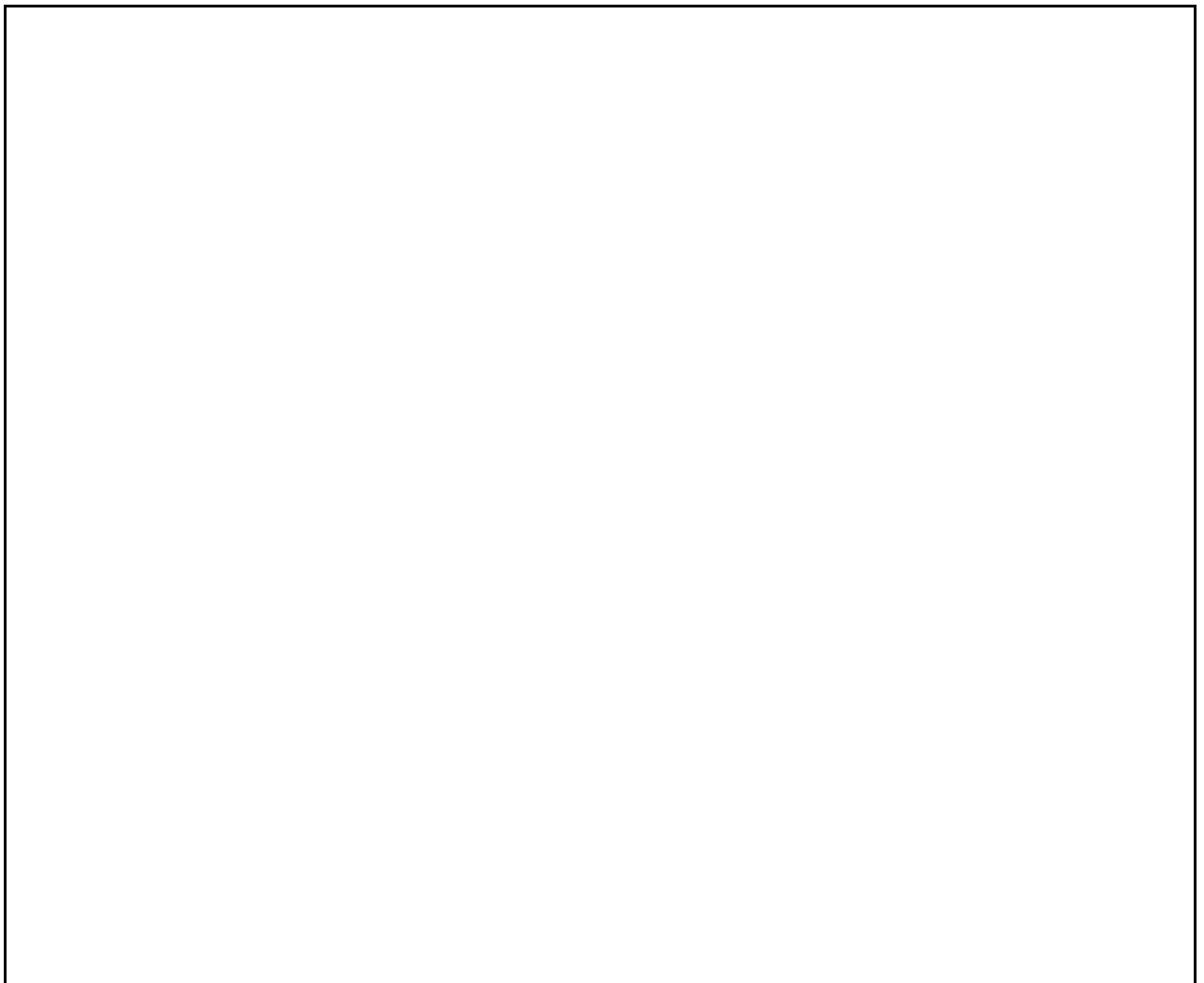
Annie and Dexter both have a skipping rope.

Annie's rope is  $\frac{3}{4}$ m shorter than Dexter's rope.

The ropes are  $\frac{13}{4}$ m altogether.

How long is each skipping rope?

Working out Space.



Dexter's rope is  $\frac{?}{?}$ m long.

Annie's rope is  $\frac{?}{?}$ m long.