

# Discussion Problems

## Step 1: Measure Length

**Teaching Note:** Please note that precise measurements are dependent upon printer settings.

### **National Curriculum Objectives:**

Mathematics Year 3: (3M2a) [Measure lengths \(m/cm/mm\)](#)

### **About this resource:**

This resource has been designed for pupils who understand the concepts within [this step](#). It provides pupils with more opportunities to enhance their reasoning and problem solving skills through more challenging problems. Pupils can work in pairs or small groups to discuss with each other about how best to tackle the problem, as there is often more than one answer or more than one way to work through the problem.

There may be various answers for each problem. Where this is the case, we have provided one example answer to guide discussion.

We recommend self or peer marking using the answer page provided to promote discussion and self-correction.

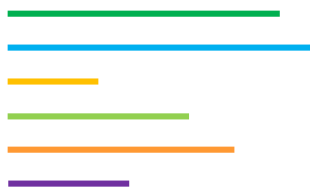
More [Year 3 Length and Perimeter](#) resources.

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

# Measure Length

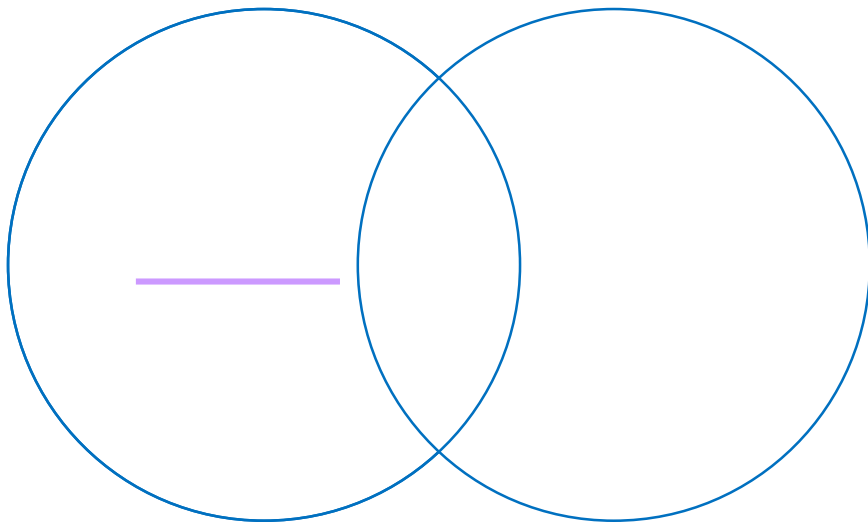
1. Measure the lines and determine the headings of the Venn diagram.

## Lines to Measure



## Venn Diagram Headings

Greater than 20mm  
Less than 3cm  
Multiple of 8  
Multiple of 3  
Multiple of 4



Sort the remaining lines according to the headings you have chosen.

Explore other ways to sort the lines onto the Venn diagram.

DP

2. Jane and Robin are playing a game. They each choose an object and give clues based on what they could use to measure them.



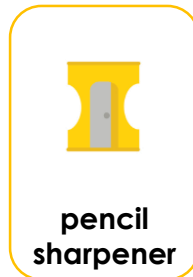
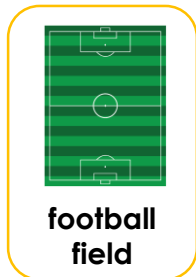
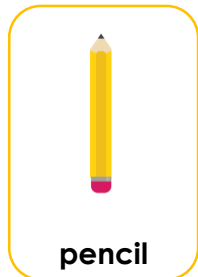
Jane

I would use a ruler to measure my object. It is no greater than 16cm long.



Robin

I would measure my object in millimetres. It is no greater than 30mm.



Which items could Jane and Robin be thinking of? Explain your answer.

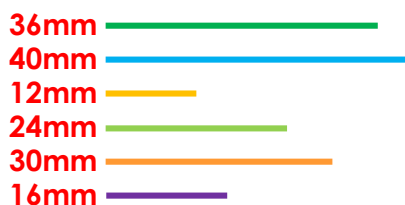
Choose an object from the selection and describe it to your partner.

DP

# Measure Length

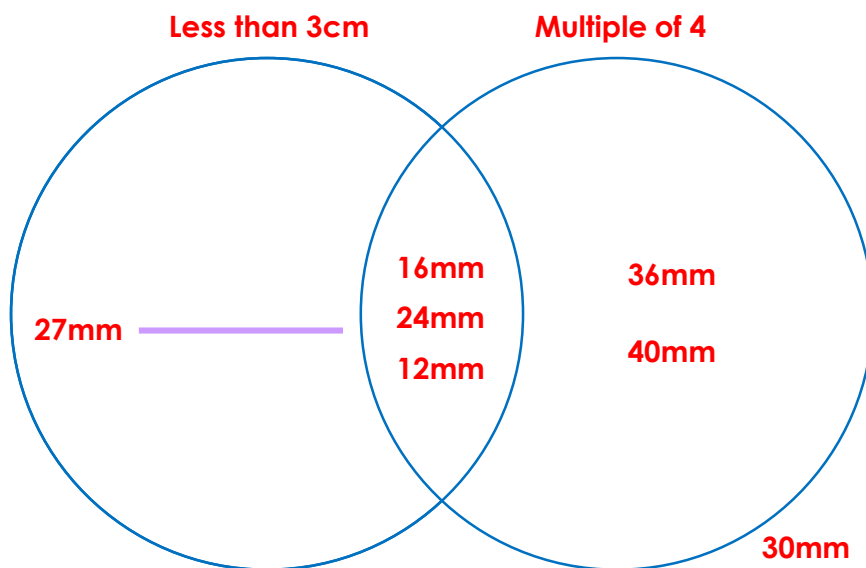
1. Measure the lines and determine the headings of the Venn diagram.

## Lines to Measure



## Venn Diagram Headings

Greater than 20mm  
Less than 3cm  
Multiple of 8  
Multiple of 3  
Multiple of 4



Sort the remaining lines according to the headings you have chosen.

Various answers depending on the headings chosen. Example provided above.

Explore other ways to sort the lines onto the Venn diagram.

Various answers depending on the headings chosen.

DP

2. Jane and Robin are playing a game. They each choose an object and give clues based on what they could use to measure them.



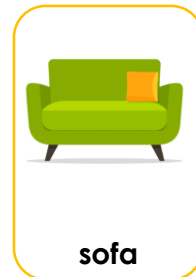
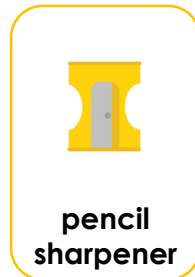
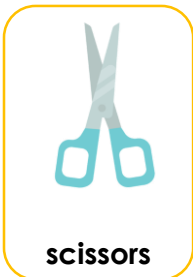
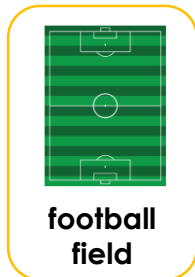
Jane

I would use a ruler to measure my object. It is no greater than 16cm long.



Robin

I would measure my object in millimetres. It is no greater than 30mm.



Which items could Jane and Robin be thinking of? Explain your answer.

Jane could be thinking of the scissors because you could use a ruler to measure them. Robin could be thinking of the pencil sharpener because it can be measured in millimetres.

Choose an object from the selection and describe it to your partner.

Various answers, for example: I would measure the football field in meters using a trundle wheel.

DP