# Year 5 – Autumn Block 5 – Measure Perimeter

## About This Resource:

This PowerPoint has been designed to support your teaching of this small step. It includes a starter activity and an example of each question from the Varied Fluency and Reasoning and Problem Solving resources also provided in this pack. You can choose to work through all examples provided or a selection of them depending on the needs of your class.

## National Curriculum Objectives:

Mathematics Year 5: (5M7a) Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres

**More resources which follow the same small steps as White Rose.**

**Did you like this resource? Don't forget to review it on our website.**

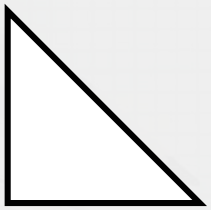
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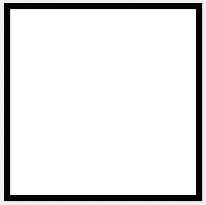
# Step 1: Measure Perimeter

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## Introduction

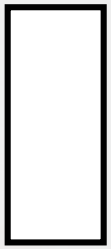
**Mark the area of the shapes below.**

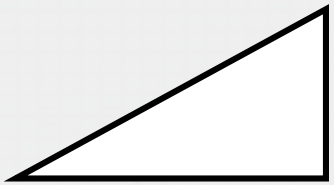






**Mark the perimeter of the shapes below.**



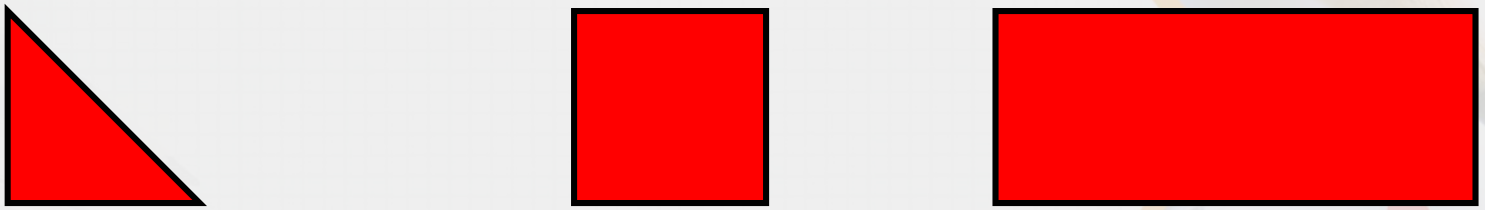




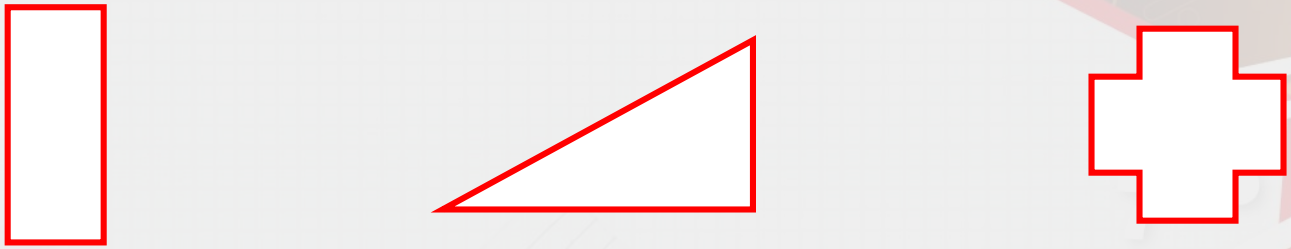
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# Introduction

**Mark the area of the shapes below.**



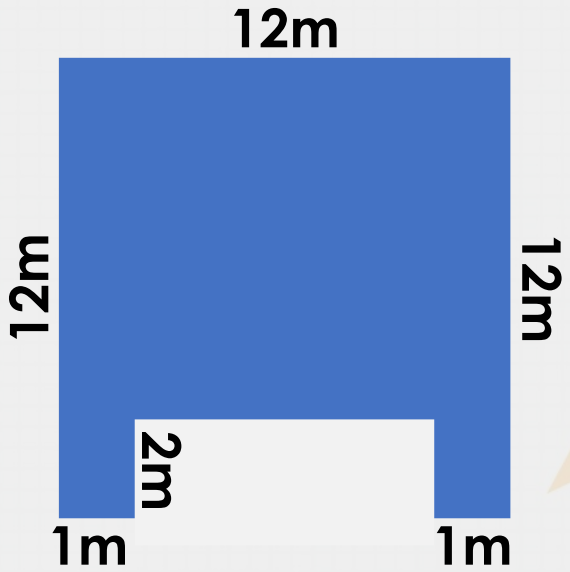
**Mark the perimeter of the shapes below.**



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## Varied Fluency 1

**Find the perimeter of this shape.**

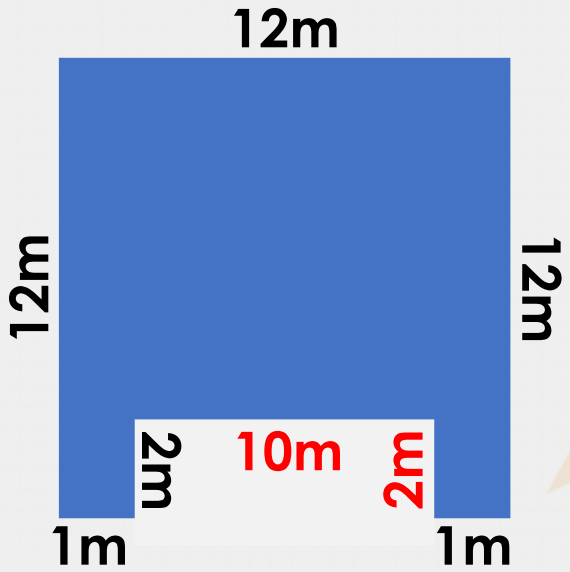



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## Varied Fluency 1

**Find the perimeter of this shape.**



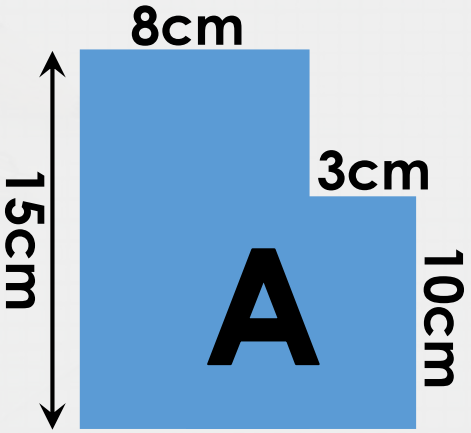

**12m + 12m + 1m + 1m + 2m + 2m + 10m= 52m**

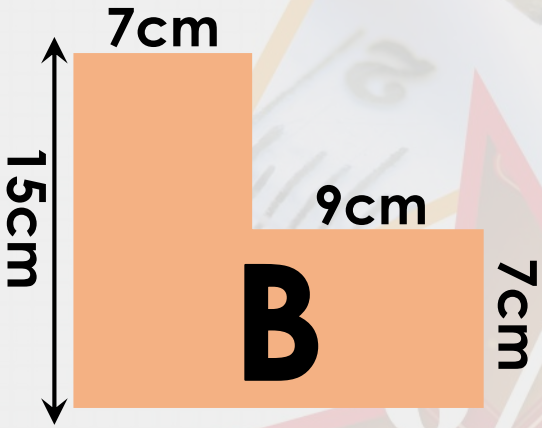
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## Varied Fluency 2

**Match the shape to its perimeter.**



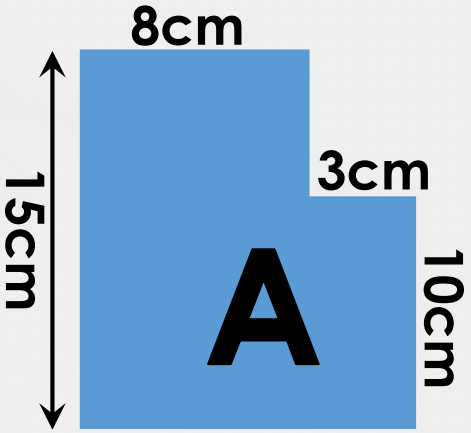

| | | |
|---|---|---|
| 52cm | 62cm | 80cm |

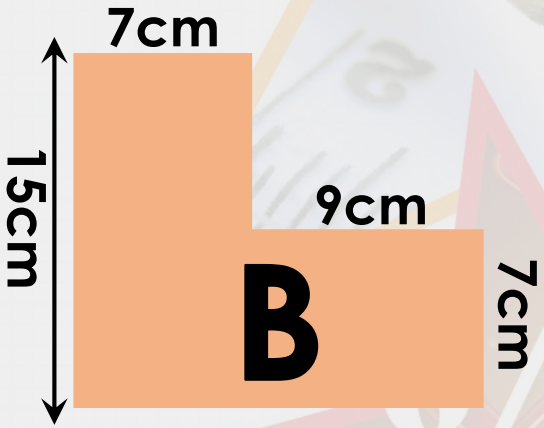
*Not to scale*

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## Varied Fluency 2

**Match the shape to its perimeter.**




52cm

62cm

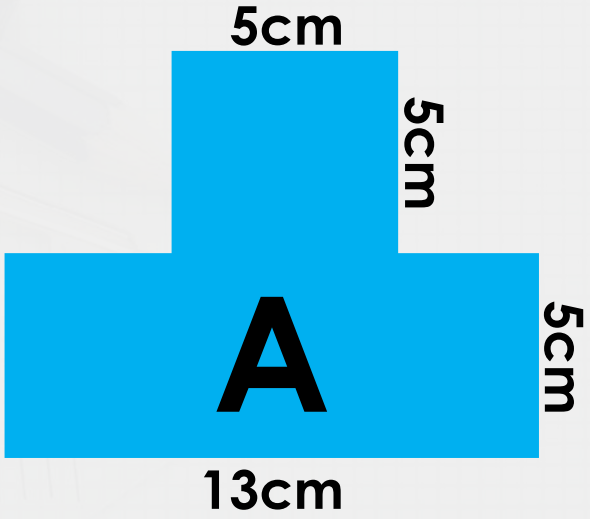
80cm

*Not to scale*

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## Varied Fluency 3

**Which shape has the longest perimeter?**





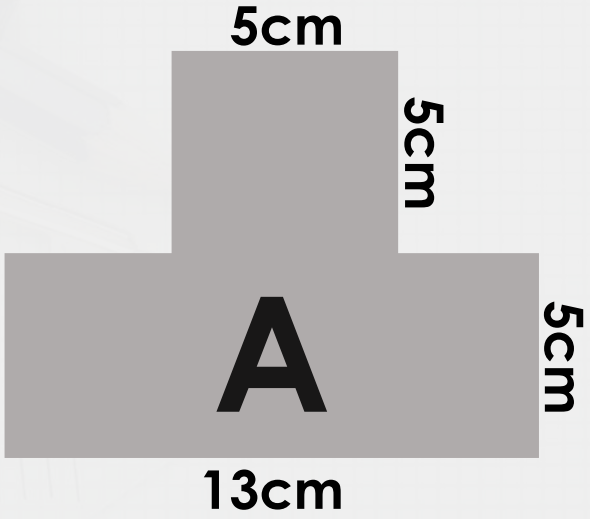


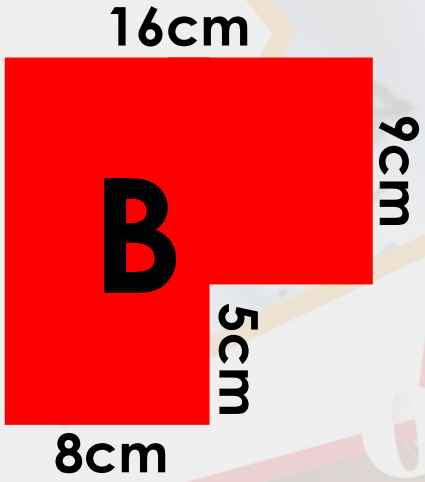
*Not to scale*

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## Varied Fluency 3

**Which shape has the longest perimeter?**




46cm

60cm

**Shape B**

*Not to scale*

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## Varied Fluency 4

**A shape has two sides of 14m, one sides of 15m and three of 9m.**

**What is the perimeter of the shape?**

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## Varied Fluency 4

A shape has two sides of 14m, one sides of 15m and three of 9m.

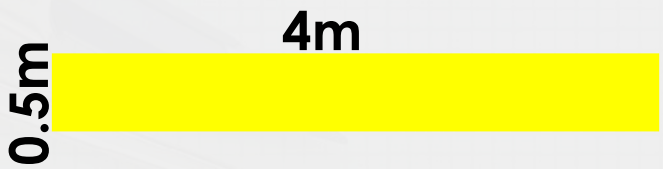
What is the perimeter of the shape?

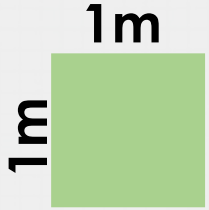
14m + 14m + 15m + 9m + 9m +9m = 70m

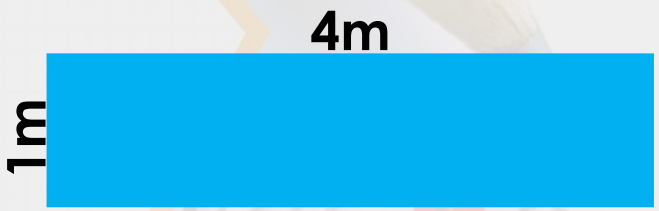
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## Problem Solving 1

**Use the shapes below to create a compound rectilinear shape. Calculate the perimeter of your shape.**



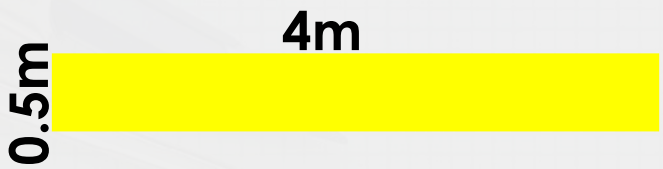

**Now use the same shapes to create a compound rectilinear shape with a shorter perimeter.**

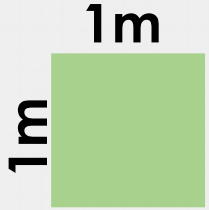
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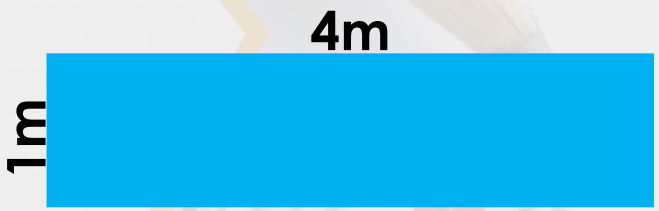
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## Problem Solving 1

**Use the shapes below to create a compound rectilinear shape. Calculate the perimeter of your shape.**




**Now use the same shapes to create a compound rectilinear shape with a shorter perimeter.**

**Possible answers:**



**19m**



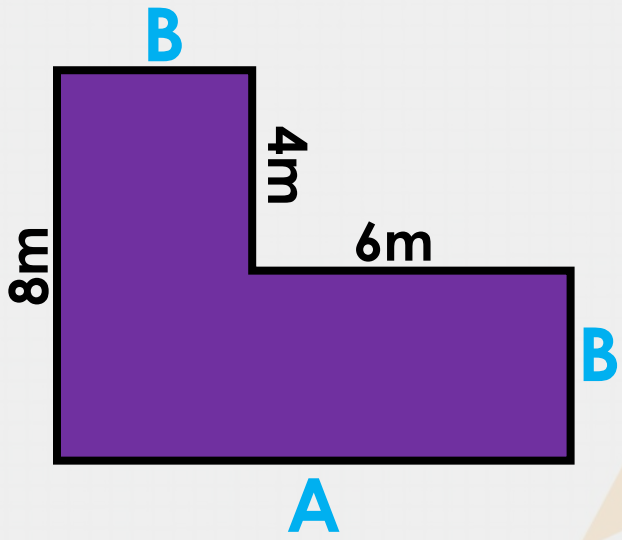
**13m**

*Not to scale*

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## Reasoning 1

**The perimeter of this shape is 36m.**



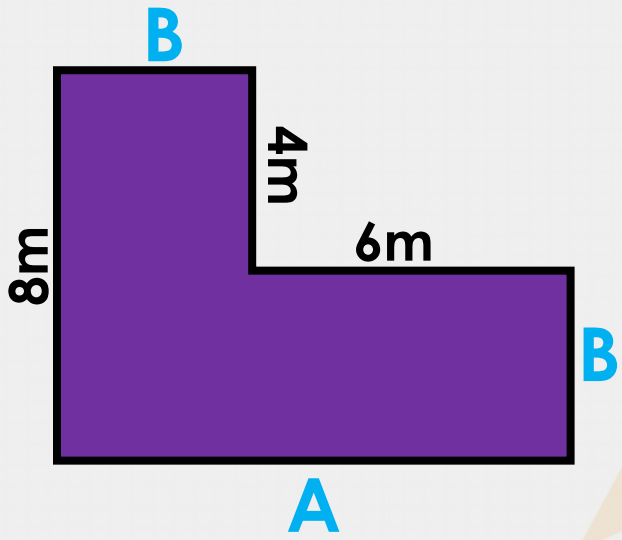

**What are the possible length of sides A and B? Prove it.**

*Not to scale*

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## Reasoning 1

**The perimeter of this shape is 36m.**




**What are the possible length of sides A and B? Prove it.**

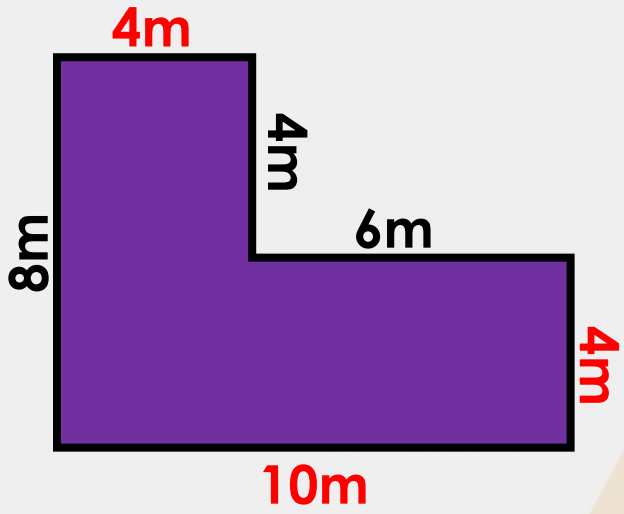
**B must equal 4m because 8m – 4m = 4m. Therefore, A must equal…**

*Not to scale*

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## Reasoning 1

**The perimeter of this shape is 36m.**




**What are the possible length of sides A and B? Prove it.**

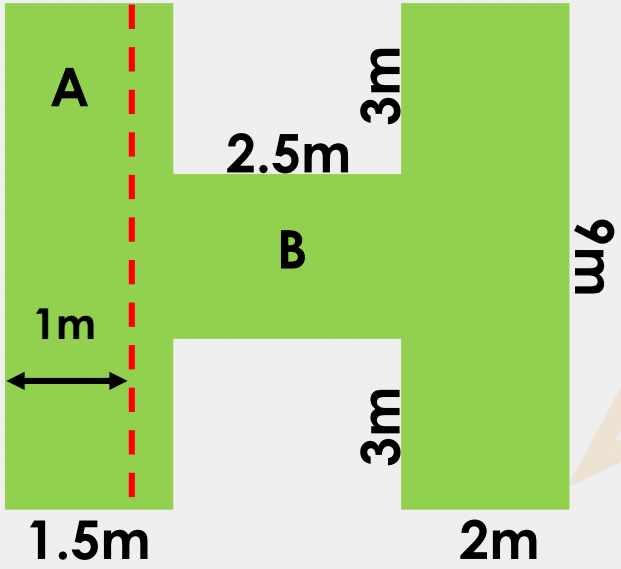
**B must equal 4m because 8m – 4m = 4m. Therefore, A must equal 10cm because 4m + 6m = 10m.**

*Not to scale*

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## Reasoning 2

**James cuts along the dotted line. He thinks the perimeter of shape A is 20m and Shape B is 40m.**



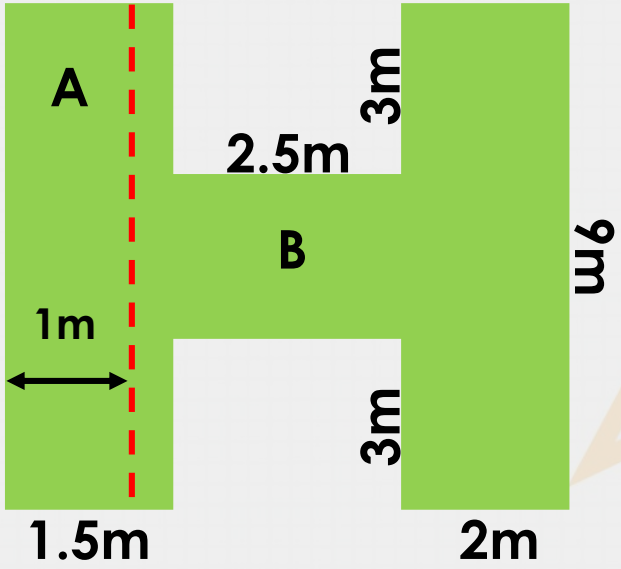

**Is James correct? Prove it.**

*Not to scale*

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## Reasoning 2

**James cuts along the dotted line. He thinks the perimeter of shape A is 20m and Shape B is 40m.**



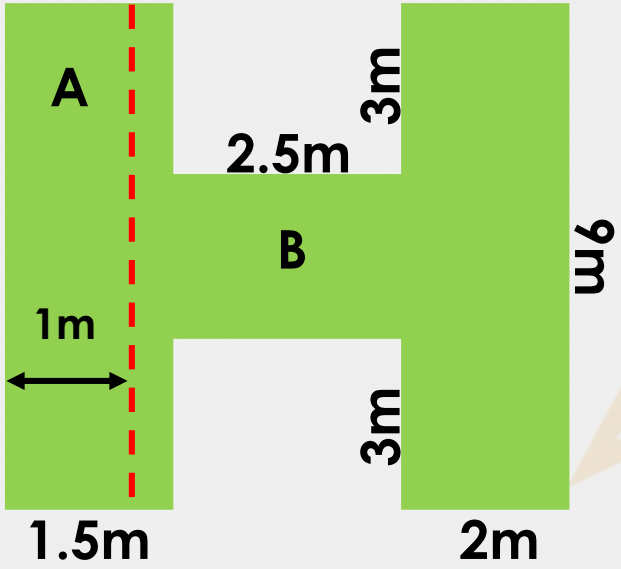

**Is James correct? Prove it.**
**James is correct because…**

*Not to scale*

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## Reasoning 2

**James cuts along the dotted line. He thinks the perimeter of shape A is 20m and Shape B is 40m.**




**Is James correct? Prove it.**

**James is correct because:**

**A = 9m + 9m + 1m + 1m = 20m**

**B = 0.5m + 3m + 2.5m + 3m + 2m + 9m + 2m + 3m + 2.5m + 3m + 0.5m + 9m = 40m**

*Not to scale*

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