

Numeracy Year 9 – Week 5: Measurement; Chance and Data

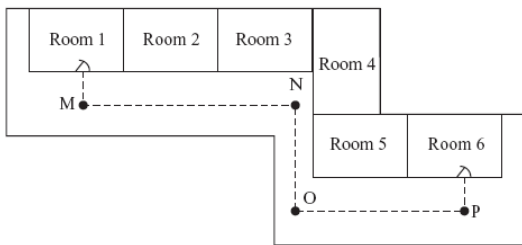
STUDENT WORKSHEET

Focus of the week

Applying links between scale and similarity

Question 1

This is a plan of a block of classrooms at a school.



The scale of the map is 1 cm represents 4 m.

What is the **actual** length of the path **from** point M to point P in metres?

_____ m

Write the answer on the line.



Question 2

The real ship, *Batavia*, was 59 metres in length.
The length of this scale model is 118 centimetres (1.18 m).



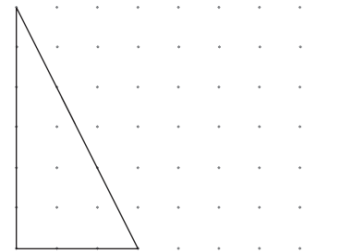
The scale of the model as a ratio is

1: _____

Write the answer on the line.



Question 3



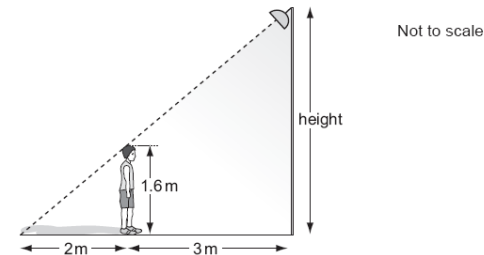
This triangle is to be reduced in size using a scale factor of $\frac{1}{3}$.

Draw carefully.



Draw the new shape on the grid.

Challenge Question



Joe is 1.6 m tall. His shadow is 2 m long when he stands 3 m from the base of a floodlight.

What is the height of the floodlight?

- 2.4 m
- 2.6 m
- 4.0 m
- 4.2 m

Shade one bubble.

