

Skills Practice 6: Scale Diagrams

The diagram represents an overhead view of a typical classroom.



The "scale" of the diagram is 1 square to 50 centimetres.

Scales can be written using a colon.

1 square : 50 cm

This means that the length of one side of 1 square on the diagram represents 50 cm inside the classroom.

This is the same as 2 squares for every metre.

2 squares
represents 1 m.
So, 10 squares represents
 $10 \div 2 = 5$ m.

- Count the number of squares along the long wall of the diagram.

_____ squares

This means that the actual length of the classroom is

_____ $\div 2 =$ _____ m

2. Count the number of squares along the short wall of the diagram.

_____ squares

This means that the actual width of the classroom is

_____ \div 2 = _____ m

3. Calculate the actual perimeter of the classroom?

4. A table will be placed in the classroom.

The table is 2 m long and 1.5 m wide.

- a) Convert these measurements to centimetres.

2 m = _____ cm

1.5 m = _____ cm

- b) Use the scale of 1 square : 50 cm to complete these statements.

The length of the table on the diagram is _____ squares.

The width of the table on the diagram is _____ squares.

- c) Draw the table to scale somewhere on the diagram.

Label it neatly.

5. How many squares represent 1 m for each of the following scales?

a) 1 square : 1 m _____

b) 1 square : 25 cm _____

c) 1 square : 20 cm _____

d) 1 square : 0.5 m _____