

Maps need to be an exact copy of the real thing, otherwise what's the point. To ensure that the map sizes are an exact reflection of the real world, we scale them to the exact size and show this size as a **Representative Fraction 1:50,000**.

Large scale maps, say 1:10,000 cover relatively small regions in great detail and small scale maps, say 1:10,000,000, cover large regions such as nations, continents and the whole globe.

1:10,000,000 **Large Scale**

For maps that show large areas but have little or no detail.



1:2,500,000

Now we are starting to show some details like cities and major roads.



1:25,000 **Small Scale**

We can see most roads and buildings. Often used for motorists.



1:3,000

We can see buildings in very high detail. However, the map is not really useful



1:50,000 Is the most common map scale used. At this size, can see lots of detail but the map can still cover a large area.

If we want to use a map this size we need to understand scale. So how is it done?

$$1 \text{ cm on the map} \rightarrow 1 : 50,000 \leftarrow 50,000 \text{ cm in real life}$$

If we want to measure that in kilometers, we know that:

$$50,000 \text{ cm} = 500 \text{ m} = .5 \text{ km}$$

100 cm = 1 m                      1000 m = 1 km

**Try this:**

**Scale 1:200 (every 1cm on map = 200cm in real life size)**

	DRAWING SIZE	REAL LIFE SIZE
Slide	1.7cm	
Table	0.8cm	
Bench		1.2m
Flower bed	1.1cm	
Youth club building	7.5cm	
Football pitch		8.9m
Soft play area	4.2cm	
Running track		12m
Swings	1.4cm	
Roundabout	2.3cm	

1. A map scale is 1:1500 If the distance on the map is 500cm, **what is the actual distance?**

2. A  B

A-B measures 16cm and the scale is 4:4000. What is the total length **in metres?**

3. A man walks 1500 metres. On a map this is shown as 3cm. **What is the scale on the map?**



# Fitting furniture

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Name \_\_\_\_\_

Class \_\_\_\_\_

This is a plan of your new bedroom. How will you arrange your furniture?

- 1 The side of each small square represents 20 cm in real life.
  - a How long is your bedroom, in metres? \_\_\_\_\_ m
  - b How wide? \_\_\_\_\_ m
  - c What is its area? \_\_\_\_\_ sq m

- 2 Now draw each piece of furniture to scale on the squared paper below.

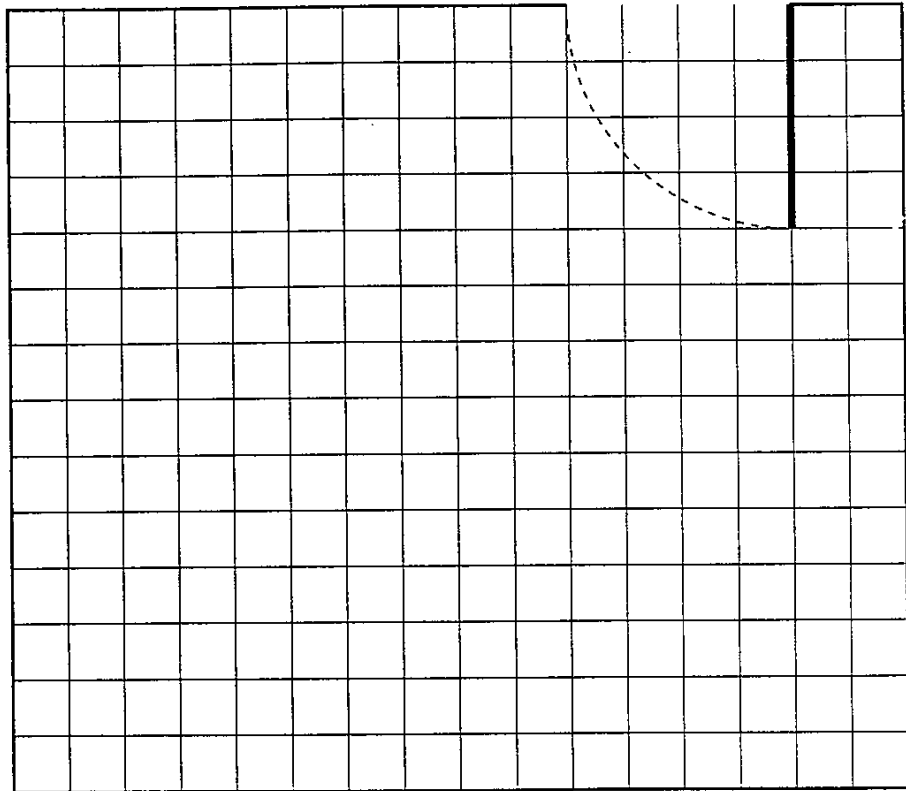
Draw them close together.  
Do the largest ones first.

- 3 Label each item, and cut it out.
- 4 Place the furniture on the room plan. Move it around until everything fits.

Leave room for doors, drawers and cupboards to open!

- 5 When you are happy with the result, stick the furniture in place.

My room



door

window

### My furniture

bed	200 x 100 cm	bedside table	40 x 40 cm
desk	120 x 60 cm	wardrobe	60 x 50 cm
bookshelf	100 x 30 cm	chest of drawers	100 x 50 cm
computer table	80 x 60 cm		

