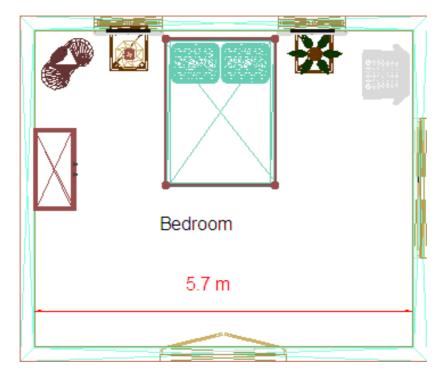
Worksheet 7

Here you have the floor plan of a bedroom, where the dimension of its width is given:



- a) Express the dimension of the width in millimetres
- b) Measure the width of the bedroom in the drawing and express it in millimetres
- c) Calculate the ratio of the width of the bedroom in your drawing to the real dimension of the width
- d) Convert this ratio to the form 1:x, to get the scale factor
- e) In your drawing, measure any length you need to answer:
 - 1) Is this a square bedroom?
 - 2) What are the dimensions of the bed
 - 3) What are the dimensions of the cabinet?
 - 4) What is the width of the bedroom door?
 - 5) What is the surface area of the bedroom?
 - 6) What is the surface area of the bed?
 - 7) What percentage of the room is occupied by the bed?
 - 8) What are the dimensions of the end tables?

Homework Worksheet 4

- The length of a football stadium is 105 m and its width is 68 m, and you want to represent it in your notebook. So, you need to make a reduction!
 - a. Find a suitable scale factor (decide first what length is suitable for your drawing, and from this decision you can get the scale factor)
 - b. Calculate the length and width of the football stadium in your drawing
 - c. Represent it in your notebook
 - d. What other things can have a shape similar to the one you have got?
- 2) Here is the floor plan of a country house.



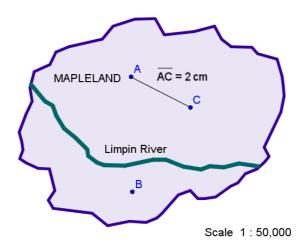
In bedroom 1 you have the dimension of the width of that bedroom. From this:

- a) Calculate the scale factor
- b) Find out the dimensions (width and length) of bedrooms, baths, kitchen and closets. Show all your work and reasoning.
- c) Find out the dimensions of the entry and the living-dining room. Explain clearly your method to determine the surface area of the bay windows.
- d) Calculate the whole floor surface area.

Worksheet 8

Here you have a map of a country called Mapleland.

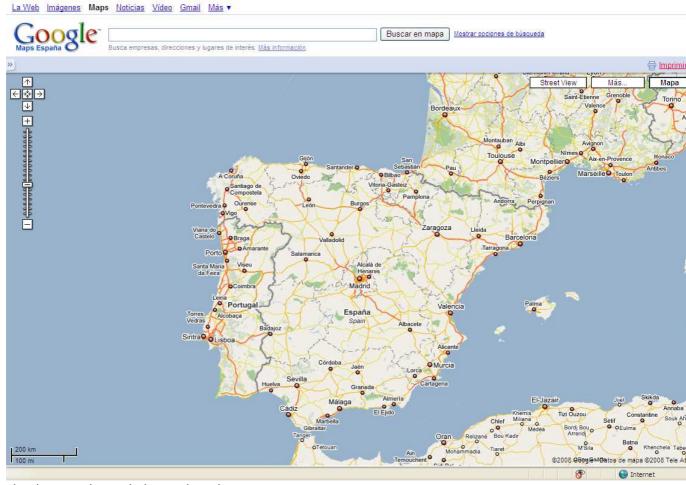
The scale of the map is 1:50,000.



- a) The distance between A and C is measured as $2 \, \text{cm}$ on the map.
 - i) How many cm is this equivalent to in real life?
 - ii) How many m is this equivalent to?
 - iii) How many km is this equivalent to?
- b) What distance on the map will represent 5km in real life? (Hint: Use your answers from part a) to help you!)
- c) If you know that the actual distance between C and B is 1.5 km. What is the distance between C and B on the map?
- d) Make an estimate of the length of the river that crosses Mapleland

Worksheet 9

Look at the map of Spain , taken from Google Maps, in the figure below.



- a) Where is the scale located on the map?
- b) In which form is the scale given? Why are graphic scales more accurate than numerical scales in this case?
- c) Convert the given scale to a numerical scale.
- d) Make an estimate of the distance between Gijón and Valencia. Describe your method
- e) Is it possible to make an accurate measurement of that distance? Explain it in words.
- f) What is farther from Gijón: Gibraltar or Barcelona?

Homework Worksheet 5

We don't know the scale of this map but we know that the distance in the real life between Madrid and Moscow is 3400 km.

- a) Which is the scale of the map?
- b) What distance on the map will represent 500km in real life?
- c) Which cities are more than 2000 km from Madrid?
- d) Which cities are between 1000 and 1500 km from Madrid

