

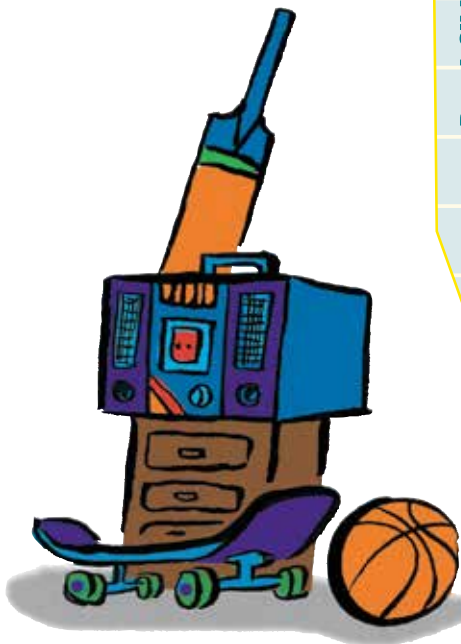
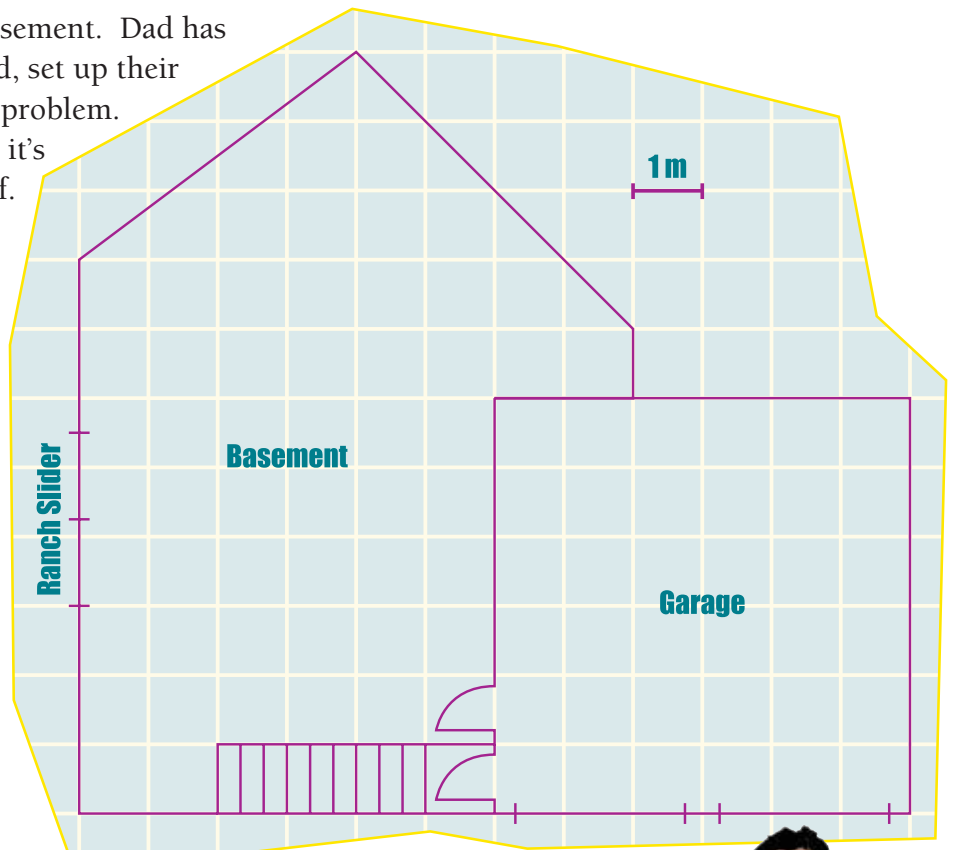
# Your Half or My Half?

You need ✓ square grid paper (1 centimetre squares) ✓ a classmate

## Activity

Robert's new house has a large basement. Dad has let Robert and his brother, Donald, set up their bedroom in it. There is only one problem. The basement is an odd shape, so it's difficult to divide it exactly in half.

1.
  - a. Work out the total area of the basement.
  - b. What should be the area of Donald's half?



2.
  - a. Copy the plan onto square grid paper. Draw a boundary that divides the basement into two parts, each with the same area. Check the areas by counting the squares.
  - b. Ask a classmate to do a second check by dividing both parts into rectangles and triangles, finding their areas, and adding them together.
  - c. Find a classmate who has divided the basement differently. Use the rectangle-and-triangle method to check that both parts have the same area.
  - d. Which is the most practical – your boundary or your classmate's? Explain your reasoning.
3. Invent a room with an odd shape. Ask your classmate to divide it exactly in half.