

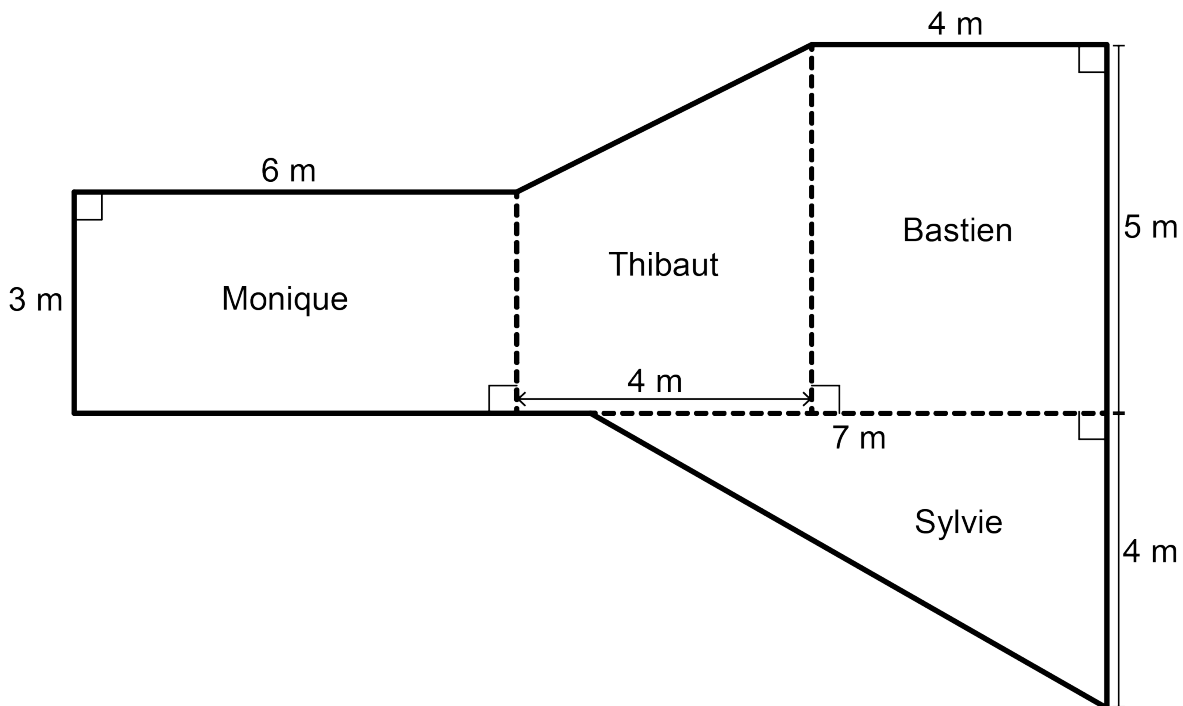


## Problem of the Week

### Problem B

### Share and Share Alike

Monique, Thibaut, Bastien, and Sylvie are siblings who share an irregularly-shaped room in their home. They have divided up the room so that each person has their own space. Each person's space is either a rectangle, a trapezoid, or a triangle. A floor plan, including some dimensions, is shown in the following diagram.



- Calculate the area of each person's space. Which person has the space with the largest area?
- The siblings have decided to divide up the room in a different way so that the area of each person's space is equal. After they do this, what is the area of each person's space?
- Redraw the inner dashed lines in the floor plan so that the area of each person's space is equal. Note that the shape of each person's space may no longer be a rectangle, trapezoid, or triangle.