

Melissa's Room

You need square grid paper a calculator cardboard
 scissors glue or tape multilink cubes (optional)



I'm going to move into this cool attic bedroom, and I'm allowed to put the furniture in my room any way I like.



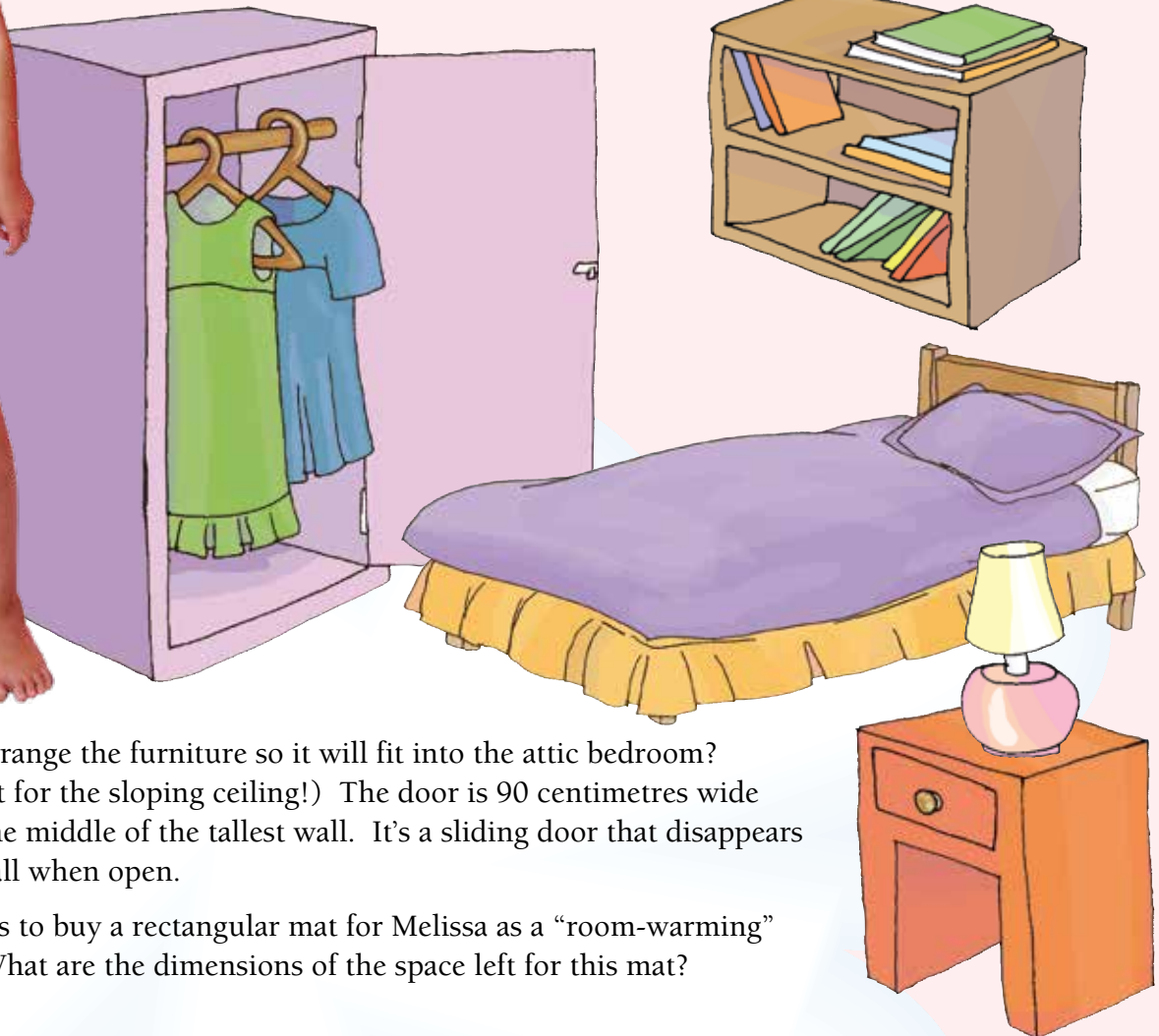
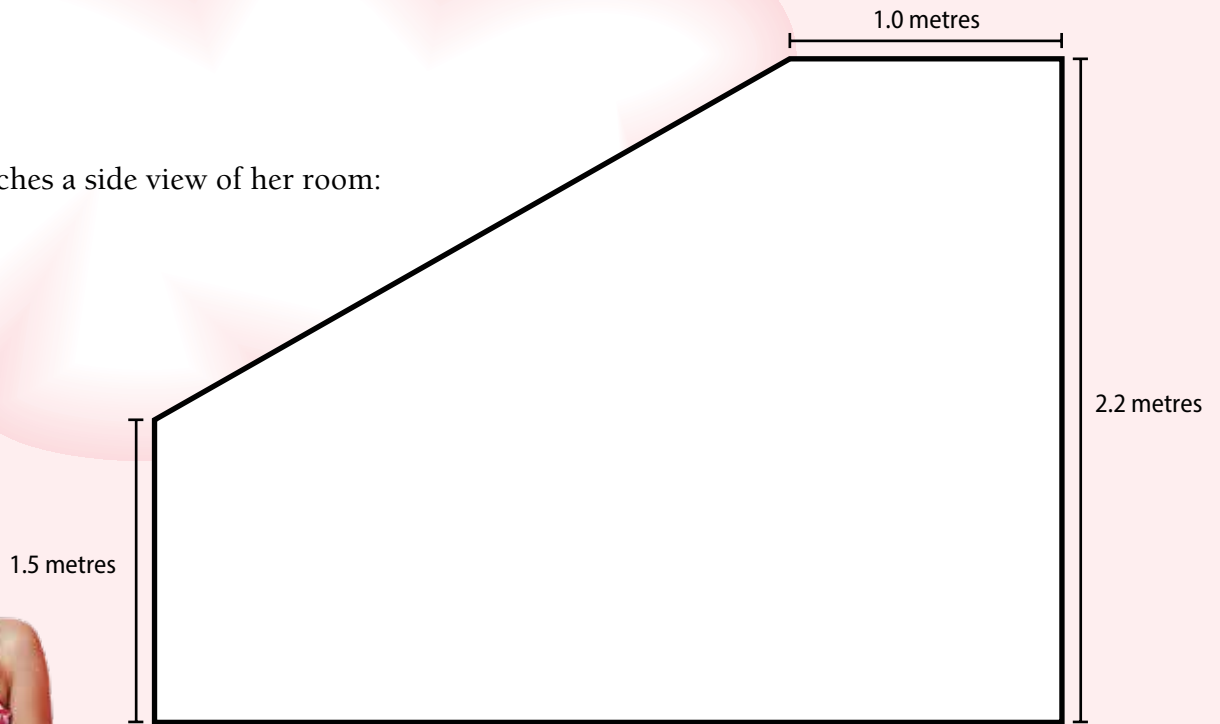
Activity

Melissa measures her furniture:

Item	Length (metres)	Width (metres)	Height (metres)
Bed	1.9	0.95	0.5
Desk	1.0	0.5	0.75
Bedside table	0.5	0.4	0.5
Wardrobe	1.25	0.5	2.0
Bookshelf	1.25	0.3	0.5

1. Calculate the volume of each piece of furniture. Which piece has the greatest volume?
2. From the measurements Melissa has made, use cardboard to make a 3-dimensional (3-D) scale model of her furniture. The scale is 1 centimetre : 25 centimetres.
3. Melissa measures the floor area of the attic. It is a square and measures 9 square metres. How long is each side of Melissa's room?

Melissa sketches a side view of her room:



4. Can you arrange the furniture so it will fit into the attic bedroom? (Watch out for the sloping ceiling!) The door is 90 centimetres wide and is in the middle of the tallest wall. It's a sliding door that disappears into the wall when open.
5. Mum wants to buy a rectangular mat for Melissa as a "room-warming" present. What are the dimensions of the space left for this mat?