









**Scale Drawings
& Elevations**

A S – 12.3.3; 12.3.2

Bird's eye view

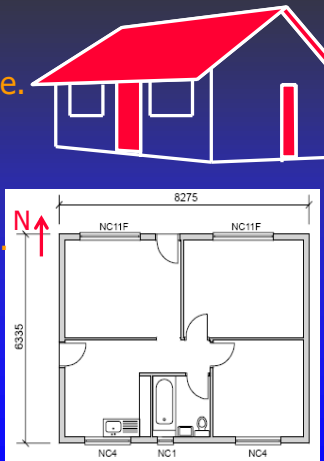
The view from above is the plan view.
The view from the front or side is an elevation.

Name the solid below:

Plan	Elevation	Solid
		sphere
		pyramid
		cone
		cylinder

☀ Describe the outside views of the house from the following positions.

1. Standing on the South side.
2. Standing on the West side.
3. Standing on the East side.



Scale me !

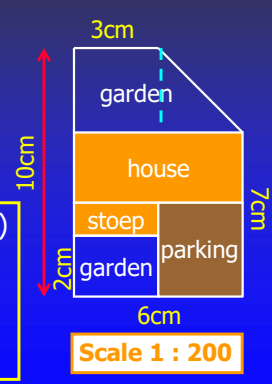
A scale plan and scale measurements of Fanisa's house are shown.

She installed a watering system and uses about 6l per m², daily, in the garden. How much water does she use in the garden each day?

Area = $(2 \times 3) + (3 \times 3) + (\frac{1}{2} \cdot 3 \times 3)$
= 19,5 cm²

Actual area = $19,5 \times (2)^2$ m²

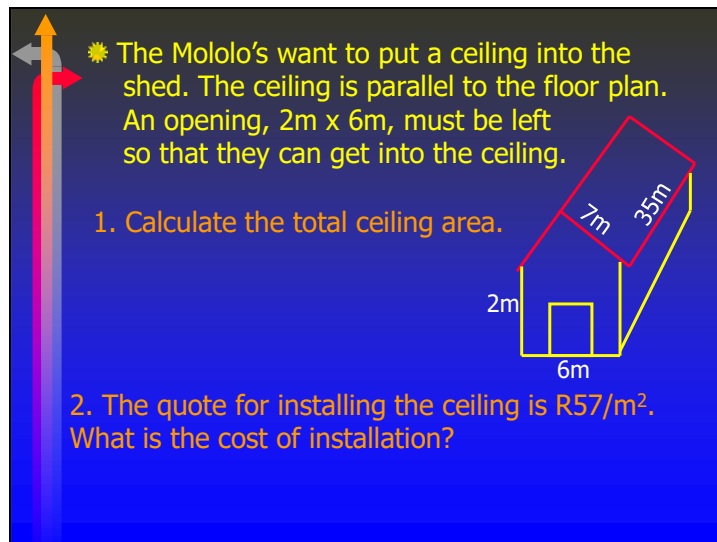
Usage But 1cm = 200cm
= 2m



Scale 1 : 200

Below is a diagram of a shed. The roof of the shed needs to be waterproofed with a type of paint called DriBest.

1. Calculate the surface area of the roof.
2. A 5l tin of DriBest paint covers 15m^2 of roof. It costs R185 per tin. What is the cost to paint the roof?

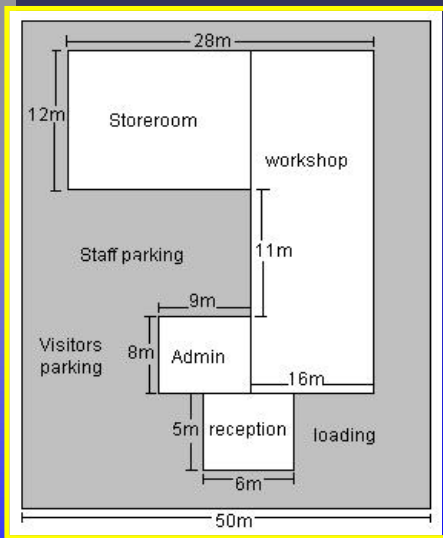


* The Mololo's want to put a ceiling into the shed. The ceiling is parallel to the floor plan. An opening, 2m x 6m, must be left so that they can get into the ceiling.

1. Calculate the total ceiling area.

2. The quote for installing the ceiling is R57/m². What is the cost of installation?

☀ The floor plan (not to scale) of a factory is shown in the diagram below. The grey area is the site on which the factory stands.

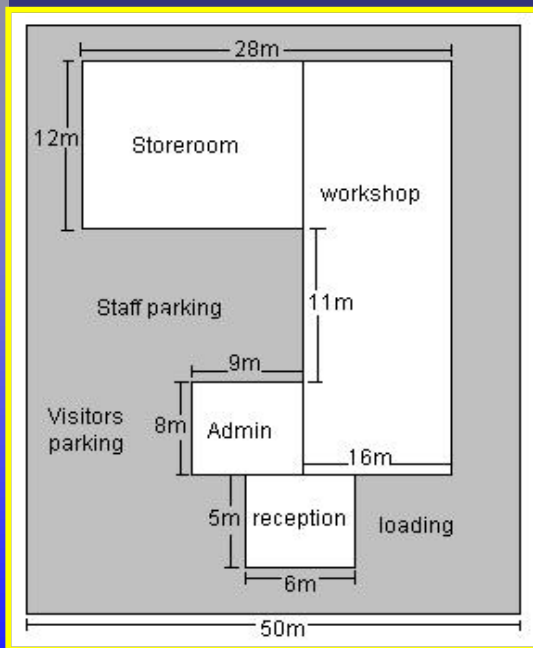


1. Calculate the entire area of the factory.

2. The stand is twice as long as it is wide. Calculate the area of the site.

3. What % of the site does the factory cover?

1. If the factory has a horizontal ceiling 3m above the floor, what is the internal volume of the factory.



2. The floor in the Admin is to be tiled. The tiles are 30cm square. How many tiles will be needed?



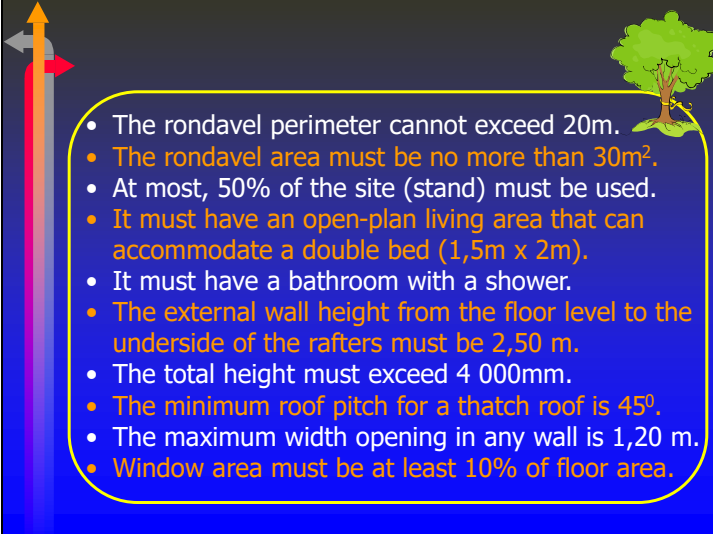
Design & Build

You or your group's commission is to build one rondavel for a game farm.


1. Do scale drawings, showing all measurements, of the following:
 - Site plan
 - Floor plan
 - Exterior elevations (front, side and top view)



The specific requirements that must be met are:

A decorative header for a slide, featuring a vertical bar with a gradient from purple to red on the left, topped with a grey arrow pointing left and a yellow arrow pointing right. To the right of the bar is a small green tree icon.

- The rondavel perimeter cannot exceed 20m.
- The rondavel area must be no more than 30m².
- At most, 50% of the site (stand) must be used.
- It must have an open-plan living area that can accommodate a double bed (1,5m x 2m).
- It must have a bathroom with a shower.
- The external wall height from the floor level to the underside of the rafters must be 2,50 m.
- The total height must exceed 4 000mm.
- The minimum roof pitch for a thatch roof is 45°.
- The maximum width opening in any wall is 1,20 m.
- Window area must be at least 10% of floor area.

 2. Budget

Your total budget is R155 000.

- The building costs to the under side of the rafters is R2 800/m² of the floor area.
- The building costs of the thatched roof is R1 530/m².

Make sure that you stay under your budget.
Show the finished cost.

