Growth Industry

Activity

The students at Pukeiti School want to build a greenhouse where they can grow cacti.
They are investigating the cost of framing and plastic to go around the outside of the greenhouse.
They want to build the greenhouse to have an area of 36 square metres (36 m^2).

Here is one floor plan for the new greenhouse:

1. How much would the walls of the 2 metre by 18 metre greenhouse cost to build?
2. What other rectangular floor plans could Pukeiti School use that are 36 square metres in area?
3. What would be the cost of the outside walls for each plan?
4. Which plan is the most economical and why do you think this?
5. The local bank gives Pukeiti School enough money for a 64 square metre (64 m^2) greenhouse.
   Draw the floor plan for the cheapest greenhouse of this size that you could build.
6. What would be the most economical floor plan for a greenhouse with an area of 24 square metres?