

Covering Up

You need ✓ Red cuisenaire rods

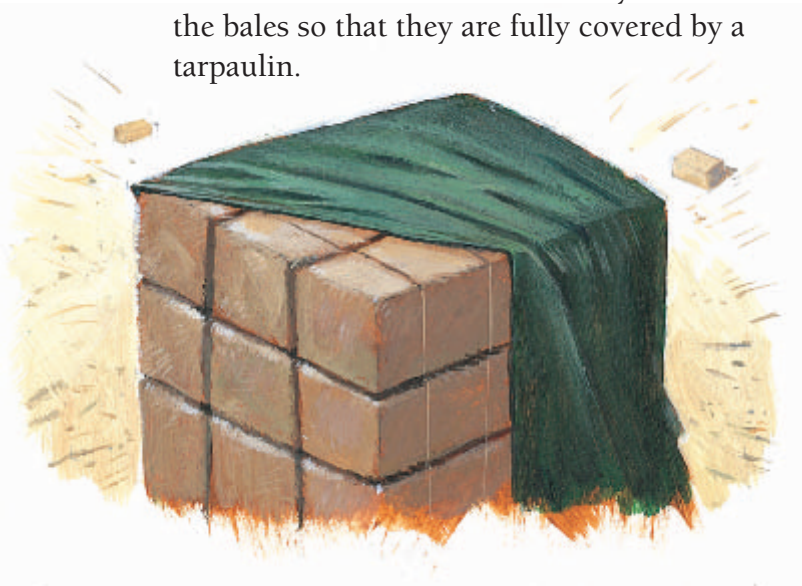
✓ paper

✓ scissors

Activity

Tom's parents run a Southland dairy farm. It is haymaking season, and the bales need to be stored to protect them from rain.

Tom wonders what is the best way to stack the bales so that they are fully covered by a tarpaulin.



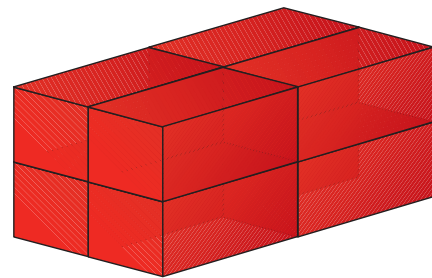
The bales made on Tom's farm measure 100 centimetres x 50 centimetres x 50 centimetres.

1. Tom decides to use Cuisenaire rods to model the hay bales. He thinks that the red rods are the best to use for this. Is he right? Why?
2. Investigate how many hay bales on Tom's farm could be stacked under a 10 metre x 10 metre tarpaulin.



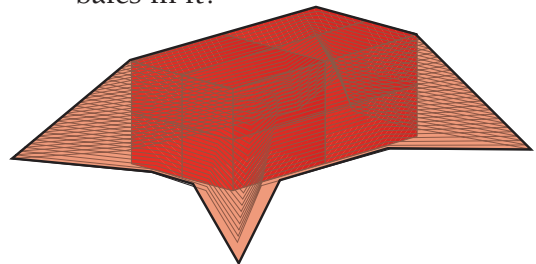
You could make a model of the problem like this:

Cut a 20 centimetre x 20 centimetre rectangle of paper for the tarpaulin.



Make different stacks of red Cuisenaire rods that can be completely covered (top and sides) by the paper.

- a. Which stack has the most bales in it?



- b. Can you find the answer without modelling with rods and paper?