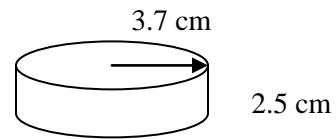
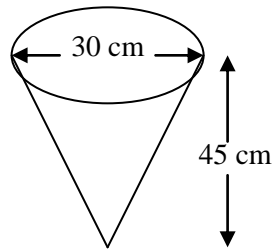


Unit 9 Lesson 6

Solving Surface Areas and Volumes with Word Problems

Minds On:

After practice, a hockey team gathers the pucks and carries them off in an inverted pylon.

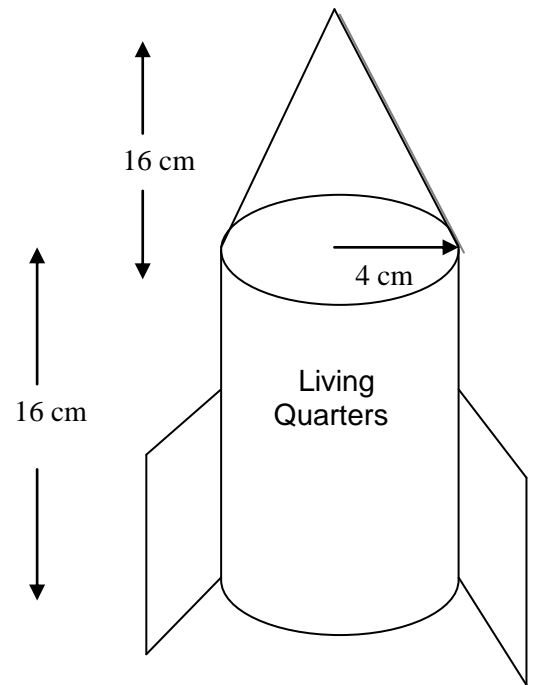


a) Calculate the volume of the pylon.

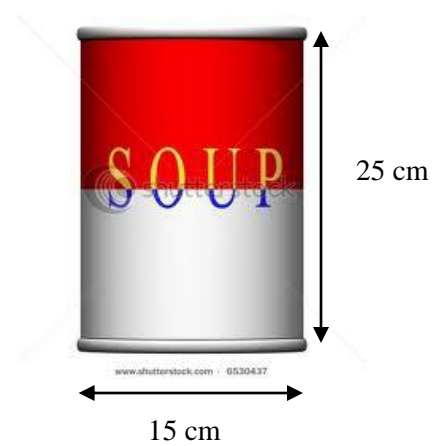
b) Find the volume of one puck.

c) Approximately how many pucks equal one pylon in volume? Is this a reasonable estimate of the number of pucks a pylon can hold? Explain why or why not.

Example 1 Calculate the volume of the model rocket shown below (ignore the wings)



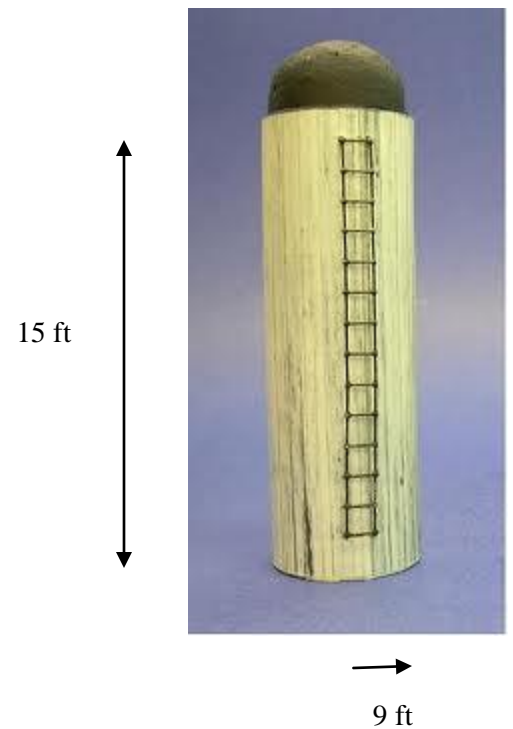
Example 2 Determine the amount of paper needed to make the label for the can pictured below.



Example 3 Determine the amount of glass needed to build the fish aquarium shown below. (Note: there is no glass on the top of the aquarium)



Example 4 Determine the volume of the silo pictured below. (Note: The top is a hemi-sphere)



Example 5 A doghouse in the shape of a square-based prism has a roof in the shape of a square-based pyramid. Find the total surface area that needs to be painted. Subtract 0.2 m^2 for the cut out doorway.

