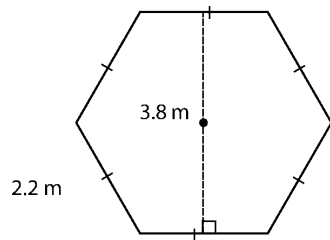


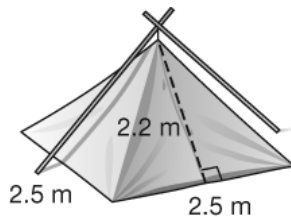
Unit 3 Surface Area and Volume – Practice Test Short Answer

SHORT ANSWER

17. Sean wants to stain the floor of his new recreation room that is shaped like a regular hexagon as shown. The label on a can of stain says that it covers about 8.5 m^2 . How many **full cans** are needed to stain the floor with **two coats**? Show your work clearly.



18. Matthew enjoys camping, and he wants to make his own tent, as shown.



- a) How much canvas fabric should Matthew buy if all sides of the tent, including the bottom, are to be made of canvas? Show your work clearly.

b) If canvas costs \$4.80/m², how much will the fabric cost to make the tent? Show your work.

19. The storage area in a building has a volume of 4387.6 m³. The boxes for the storage area are rectangular prisms. Each has the dimensions 59.1 m by 5.8 m by 3.2 m. What is the maximum number of boxes that can fit into the storage area? Show your work.

20. Aisha is a landscaper. The topsoil delivered to a customer's driveway formed a cone. She estimates the pile has a diameter of 8 ft and a height of 4 ft. What is the approximate volume of topsoil in the pile? Round to the nearest cubic foot. Show your work.



21. A flat soccer ball is inflated using a hand pump. The pump inflates the ball at a rate of 225 cm³ per pump, to a diameter of 22 cm. About how many pumps are required to inflate the ball? Show your work.

Unit 3 Surface Area and Volume - Practice Test ANSWERS

SHORT ANSWER

17. 3 cans
18. a) 17.25 m^2
b) \$82.80
19. 4 boxes
20. 67 ft^3
21. About 25 pumps