b. How many square feet of material does Miranda need to make the tent (including the floor)? Show your work.

_____

c. What is the volume of the tent? Show your work.

_____

d. Suppose Miranda wants to increase the volume of the tent by 10%. The specifications for the height (6 feet) and the width (8 feet) must stay the same. How can Miranda meet this new requirement? Explain.

_____

_____

2. Li is making a stand to display a sculpture made in art class. The stand will be 45 centimeters wide, 25 centimeters long, and 1.2 meters high.

a. What is the volume of the stand? Write your answer in cubic centimeters.

_____

b. Li needs to fill the stand with sand so that it is heavy and stable. Each piece of wood is 1 centimeter thick. The boards are put together as shown in the figure, which is not drawn to scale. How many cubic centimeters of sand does she need to fill the stand? Explain how you found your answer.

_____

_____

_____

_____

_____

_____

1 cm

1.2 m

45 cm
Front View

1.2 m

25 cm
Side View