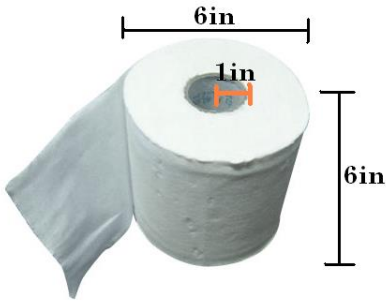
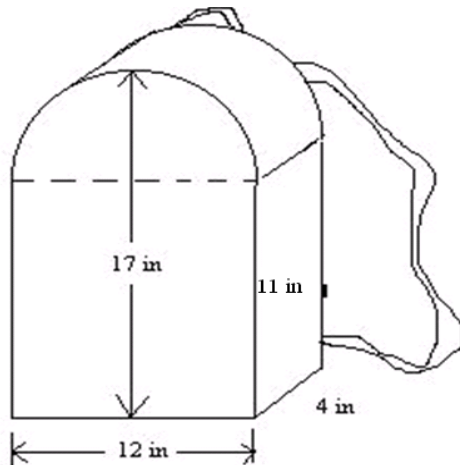


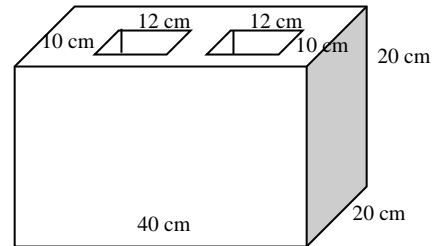
**Find the volume of the toilet paper.**



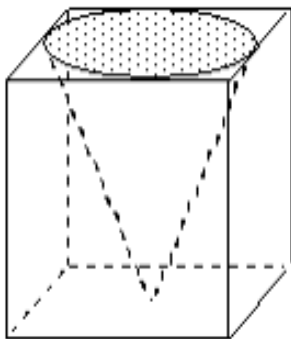
**Find the Surface Area of the lunch box. How much pudding could you fit in the lunch box? Keep in mind that the cover flips open and there is NO pudding thick enough to remain in the cover.**



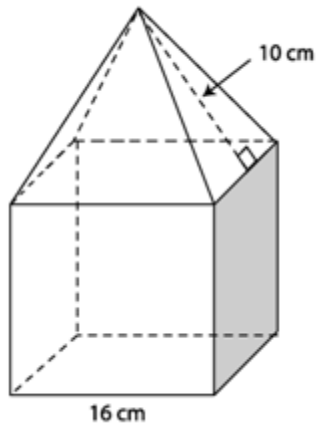
Find the surface area of the cinder block. How much cement would it take to make the block solid?



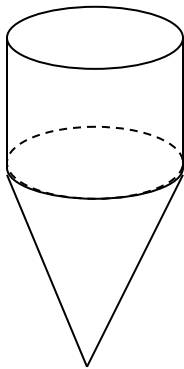
A machinist drilled a conical hole into a cube of metal as shown. If the cube has sides of length 8 cm, what is the volume of the metal after the hole is drilled? Round to the nearest tenth.



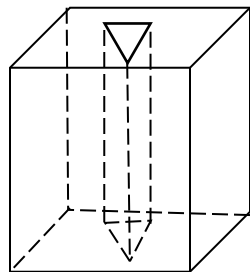
1. Find the total surface area and volume of the composite space figures.



2. A storage bin is shaped as in the figure. The radius of the cylindrical top is 7 ft. The overall height of the bin is 26 ft. and the altitude of the conical section is 12 ft. Find the total surface area of the bin.

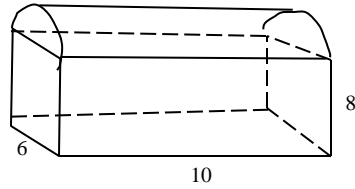


3. The dimensions of the base of a rectangular solid are 5 and 8, and its altitude is 12. A hole, extending from upper base to lower base, is in the shape of a right triangular prism whose bases are equilateral  $\Delta$ 's having an edge of 3. Determine the total surface area of the figure.

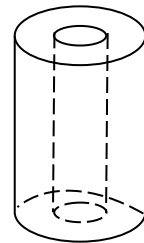


4. Jimmy's lunch box in the shape of a half cylinder on a rectangular box.

Find the total area of metal needed to manufacture it



5. A cistern (well) is to be built of cement. The walls will be 1 ft thick and painted with purple paint. The outer height will be 20 ft. The inner diameter is 10 ft. How much paint is needed for the job if one gallon covers 100 sq. ft.?



6. A rectangular prism is 40 ft by 38 ft by 15 ft. Shown below is the prism with a prism and half cylinder removed. Find the volume of the original prism remaining.

