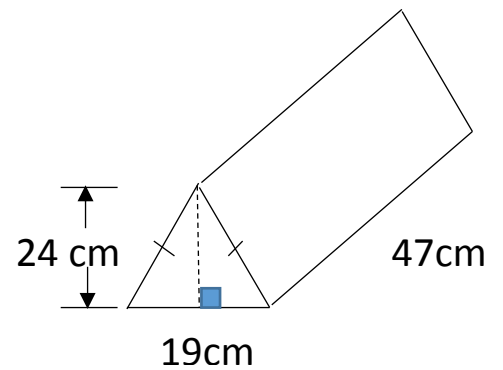


Warm Up: Calculate the surface area of the following:



How can we find the surface area of a soup can, that has a radius of 4.3 cm and a height of 14.6 cm?

Sketch a net of the cylinder.

Step 1: Find the _____ of the _____ faces.

Step 2: Find the area of the _____.

** The length of the rectangle is equal to the _____ of the circular faces. **

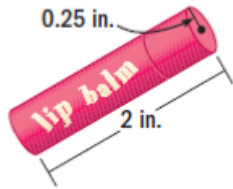
Step 3: Find the _____ surface area of the can.

Surface Area Formula for a Cylinder:

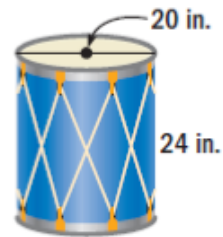
$$SA_{cylinder} = 2\pi r^2 + 2\pi rh$$

Ex. 1 Calculate the surface area of the objects below.

a)



b)



Ex. 2 You are frosting a circular cake that has three layers. Each layer has a 5 inch diameter and is 2 inches tall. You frost in between each layer and the exposed surface of the cake, excluding the bottom. To the nearest square inch, what is the total area that you frost?