Code Foo Question 2

King Kong enjoys climbing the real Empire State Building in New York City to relax after a long shoot, but prefers to spend summers in temperate San Francisco. San Francisco plans to build a to-scale Lincoln Log replica of The Empire State Building as a thank you for King Kong's many years of B-Movie service. They want you to figure out how many Lincoln Logs it would take. Describe each step in your thought process.

1st step

Research Lincoln Logs and Empire State Building. Crucial information would be dimensions and measurements. Find perimeter/height/area of ESB, and length/width of average Lincoln log.

2nd step

Using the Empire state buildings measurements, find out how many lincoln logs could fit in the area taken up by the building. Lincoln logs are roughly 2 centimeters in diameter. (https://en.wikipedia.org/wiki/Lincoln_Logs)
Length varies for the logs so lets just assume there is one constant length for each lincoln log.
Lets assume were putting down a single layer of logs for the base.
Find out how many logs length wise would fill up the buildings area going in one direction (length or width), then find out how many logs would fit using the diameter going the other direction.

Example of logs are laid out like

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3 rows of logs going diameter wise, 15 columns going length wise

3rd step

Once you know how many logs will fill up 1 bottom layer filling out the perimeter of the building, Use the logs diameter and the buildings height to figure out how many log layers you'd need to stack on top of each other to reach the buildings height.

4th step

As the area of the building is filled out and the logs stacked, there will be a decrease in the perimiter/area of the building since the building get thinner as it gets higher. Once this happens simply repeat steps 2 and 3