

L. Geometry Project Swimming Pools!!!

Background: With summer coming up, it sure would be nice to have a swimming pool! Let's think about the materials that might be needed for a swimming pool.

Instructions:

1. Let's say that we are building a rectangular pool that will be 30 feet long, 20 feet wide, and 12 feet deep. Draw and label a diagram of this pool.
2. How many cubic feet of water could fit inside the pool? Show all work, including the formula you use. Correctly label your answer.
3. There are approximately 7.5 gallons in one cubic foot. Using dimensional analysis, convert your previous volume into gallons. Show all work.
4. In order to build a pool, we would need to use a material like concrete. Using the same dimensions from Step 1, find the area that the concrete would need to cover for your pool (surface area). Show all work, including the formula you use. Correctly label your answer.
5. Now, let's say that we also want to build a jacuzzi next to our pool. The jacuzzi will be circular, with a radius of 3 feet and a depth of 4 feet. Draw a diagram of this jacuzzi, then repeat Steps 2-4 with our new dimensions, and use 3.14 for pi. You may round your answers to the nearest whole number.
6. Type all of your findings in the [Lab Report](#) Format.

Project is due on Wednesday, June 5.