Mathematics 4020 Portfolio Activity

Pictured on the other side is a swimming pool with its main dimensions labelled. The shallow end starts at 1 m deep, and a sloping floor leads to a 6 m deep end. The pool is 20 m from side-to-side, and a total of 25 m long. The bottom of the deep end is 13 m long.

1.	What is the most precise geometric name you could give for the shape of the pool (as a three-dimensional object)?
2.	How many (it's a lot!) 1 cm ² tiles would be needed to tile the bottom and side walls of the pool?
3.	How many liters of water does the pool hold?
4.	If water can be pumped into the pool at a rate of 400 L/min, how long would it take to fill the pool?

