You are supplied with a 1.87% concentration (by weight) hydrogen peroxide solution. Assume the density of your solution is 1.00 g/mL.

1. Write a balanced equation for the reaction of aqueous hydrogen peroxide decomposing to oxygen and water using yeast as the catalyst for the reaction.

yeast

H2O2(aq) -----------🡪H20(l)+(1/2)O2(g)

1. How many mL of your assigned H2O2 solution would you need to measure out to produce 38.00 mL of oxygen gas at 753.8 mm Hg and 25°C, collected over water?
2. What is the pressure of the oxygen gas if the vapor pressure for water at 25°C is 23.8 mm Hg?
3. If your actual volume of oxygen collected is 36.5 mL, what is the volume of the dry oxygen?
4. Calculate the volume of dry oxygen at STP?
5. How many moles of oxygen gas do you have at STP?
6. How does the value for moles of oxygen calculated in Question 6 differ from the predicted value you calculated in question 2?