PracticeProblem- Geometric Sum (for “End of Oil” Problem)

Shipwreck

A small group of people on a luxury yacht found themselves shipwrecked on a deserted island. The only water they had was from a fresh water tank on board the ship. Use the geometric sum formula, or any other means, to answer the problems below.

a) If the the people drank 10 gallons per day, and increased that amount by 8% each day (of each previous day’s consumption), how many total gallons would they drink from the tank after 7 days?

b) If there were exactly 500 gallons of water in the tank, how many days would it last if they drank 10 gallons on day 1 and increased that amount each successive day by 8% of the previous day’s consumption?