WANYANGE GIRLS' SECONDARY SCHOOL

MOLE BASH 1

1. A hydrocarbon Q contains 85.7% carbon. If 2.8g of Q occupies 2.24dm^3 at stp
   a) Determine the empirical formula of Q

   b) Determine the molecular formula of Q

   c) Draw the structural formula of Q

2. 6.24g of hydrated sodium carbonate, $Na_2CO_3.xH_2O$, was dissolved in water to make 100 cm^3 of solution. 25 cm^3 of this solution reacted completely with 20 cm3 of 0.8M nitric acid. Calculate the value of X in the formula $Na_2CO_3.xH_2O$