Question #84024, Chemistry / General Chemistry | for completion

calculate number of moles in drink mix powder needed to make 3 solution: 0.2 M, 0.5 M, 0.8 M. Assume the molar mass of drink powder is same as sugar, 180.156g/ml. use 100ml of water.Then calculate calculate number of grams of drink mix powder needed for each solutions.Grams of solute,Grams of solvent, molarity and percent by mass for each. Which one taste the best

Answer:

Formula:

$Cm=n/V$;. $n=m/M$;. $W=m1x100/m1+m2$

$n=0.2x0.1=0.02$ moll (0.2M) and m=3.6 g of solute m=96.4 g solvent 3.6%

$n=0.5x0.1=0.05$ moll(0.5M) and m=9 g m=91 g 9%

$n=0.8x0.1=0.08$ moll(0.8M) and m=14.4 g and m=85.6 g 14.4%

Cm=0.2

Cm=0.5

Cm=0.8 Is the best taste.