



mm. 58.44 g mol⁻¹

conc. 1M



solute 1 mol
solvent 1 L

split
in half

1M 1M 1M 1M



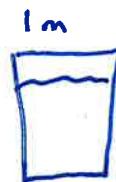
0.5mol
0.5L

0.25 mol
0.25 L

$$V_{\text{sln}} = ?$$

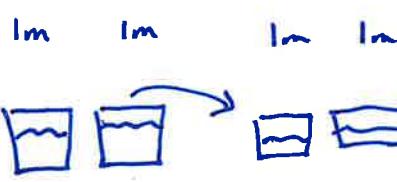
- ① mass of soln
- ② density of soln
- ③ 1 and 2 to get V_{of}

conc



solute 1 mol
solvent 1 kg

split
in half



0.5 mol
0.5 kg

0.25 mol
0.25 kg

"RATIOS"

How to change concentration?

① More concentrated soln

- Remove solvent
- Add solute

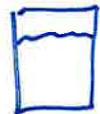
② More dilute soln

- Remove solute
- Add solvent

conc 1g/100g

1g/100g

1g/100g



→



solute 1g
solvent 100g
ratio 0.01

0.5g
50g
0.01

0.25g
25g
0.01

conc 1g/L

1g/L

1g/L



→



solute 1g
solvent 1L
ratio 1

0.5g
0.5L
1

0.25g
0.25L
1

fin exam

20 Qs 2.25/Q

45 min

12 MC

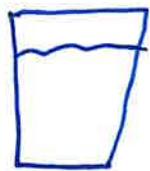
Q 6 HW Exam 10

Solns → Read

Liqs dissolvs like Typis → saturation of solubility

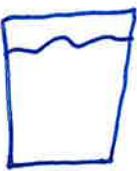
white

conc. 1% by mass



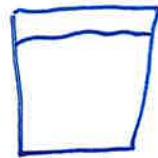
solute	1g	
solvent	9g	$\frac{1g}{10g} \times 100\% = 1\%$
solution	10g	

1%



0.1g	
9.9g	$\frac{0.1g}{10g} \times 100\% = 1\%$
10g	

1%



xg

$$\frac{xg}{xg} \times 100\% = 1\%$$

so

