

Answers for:

\Dgd2e13ans 13 j18 12f02

QUESTIONS FOR DGD 2 - WEEK OF Jan 21-25
in addition to your questions....

- 1) It's the problem from the notes! Answer with face is on page S-23
- 2) Problem on page S6
- 3) see DGD1

ASK: WHAT IS ISOTONIC? = 300 mOsM = 150 mM KCl

IN DGD1 : NEED MW NaCl. Na? IS IN NEXT ROW IN PT-> CONSIDER AS 2 X CARBON = 24; CL ALSO IN NEXT ROW = 2C = 24 -> NaCl = 48 ROUND OFF TO 50
50 X 0.3 -> NEED 15 G/L

“WHAT IS YOUR REFERENCE FOR WEIGHTS?” THE LITTLE BAG OF SUGAR GIVEN WITH COFFEE IN RESTAURANTS IS 5 G. SHE USED THE SPOON THREE TIMES TO PUT APPROXIMATELY A SUGAR BAG’S WORTH OF SALT INTO THE POT.
A CUP IS ABOUT 250 ML. SHE THEN ADDED 4 CUPS OF WATER.

- 4) NEW: Estimate the upper and lower error that she could have made using the following facts:

$$AW Na = 23 \quad AW Cl = 35.5$$

Assume that her spoon contained as little as 3g and as much as 7 g

A “normal” coffee cup can be as little as 200 ml and as much as 350 ml

TO ESTIMATE THE WORST ERRORS ON A PROCESS: STACK ALL THE THINGS THAT MAKE IT HIGH FOR THE OVER ESTIMATE AND ALL THE THINGS THAT MAKE IT LOW FOR THE UNDER ESTIMATE

you can do all the calculations below with rounding off and guesstimates....

	WEAKEST SOLUTION	STRONGEST SOLUTION
SPOONS	3	3
g	3	7
weight	9	21
Mol	0.15	0.36
cups	4	4
ml	350	200
volume	1400	800
M	0.11	0.45

THESE ARE THE WORST POSSIBILITIES: NOT BAD FOR HOME COOKING!!
NOTE THAT ACCURATE ATOMIC WEIGHTS WERE NOT IMPORTANT. NEVER GET BOGGED DOWN BECAUSE YOU DO NOT HAVE A PERIODIC TABLE!

- 5) Test 1s are posted with answers.