CellSheet™ App

TI-84 Plus

TI-89 Titanium

Voyage™ 200

This App extends the utility of the TI-84 Plus into science classes, such as Chemistry and Biology.

Example 2: Chem/Bio Class

SO1	A	B	C
1			
2			
3			
4			
5			
6			

A1: Menu

1 Molarity

Start the CellSheet App. Press APPS and choose CellSheet. (Molarity is defined as the moles of solute divided by liter of solution.)

MOL	A	B	C
1	MOLKCL	74.6	
2	VOLSOL	955	
3	MASKCL	32	
4			
5			
6			

A4: Menu

2

Using the cursor keys, move to cell A1, and press 2nd ALPHA. Enter [„] [M] [O] [L] [K] [C] [L] ENTER. Move to cell A2, press 2nd ALPHA and enter [„] [V] [O] [L] [S] [O] [L] ENTER. Move to cell A3, press 2nd ALPHA and type [„] [M] [A] [S] [K] [C] [L] ENTER. (The quotation marks are used to tell CellSheet that entries are in text format.)

3

Enter “74.6,” “955,” and “32” into cells B1, B2, and B3 respectively. The figure 74.6 represents the molar mass of the KCl compound, 955ml is the volume of the solution, and 32g is the amount of the compound dissolved (the solute).

MOL	A	B	C
1	MOLKCL	74.6	
2	VOLSOL	955	
3	MASKCL	32	
4			
5	MOLARITY		
6			

B6: =(B3/B2)*(1/B1)*(10 _

4

Scroll to cell A5 and enter 2nd ALPHA [„] [M] [O] [L] [A] [R] [I] [T] [Y] ENTER.

5

In cell B6, press STO▶ (the key for “=”) and then
(B3/B2) • (1/B1) • (1000/1).
Press ENTER.

MOL	A	B	C
1	MOLKCL	74.6	
2	VOLSOL	955	
3	MASKCL	32	
4			
5	MOLARITY		
6		.44917	

C1: Menu

6

The computation performed in Step 7 represents the following: (mass solute/ volume solution) • (1/molar mass of KCl) • (1000ml/1L) = mol/L or M.

SAVE AS...
Old:MOL
New:MOLAR
Enter

7

Save this spreadsheet. Press GRAPH [MENU], and choose 1:File. Choose 2:Save As, type MOLAR, and press ENTER.

SO1	A	B	C
1	MAMMAL	GEST	NUMOF
2	OPOSSU	12	13
3	MOUSE	20	6
4	RABBIT	30	4
5	DOG	61	7
6	LION	108	3

A1: "MAMMAL Menu

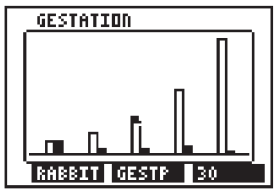
1 Gestation Periods

Start the CellSheet App by pressing APPS and choosing CellSheet. Begin by entering some data on the gestation periods of various mammals. Use the screen as shown as the example data.

BAR CHART
Categories:...:A6
Series1:B2:B6
Ser1Name:GESTP
Series2:C2:C6
Ser2Name:NUMOFF
↓

2

Press GRAPH [MENU] and choose 4:Charts. Choose 5:Bar as the graph style. Fill in the ranges as follows:
Categories: A2:A6
Series 1: B2:B6
Ser1Name: GESTP
Series2: C2:C6
Ser2Name:NUMOFF
Using the cursor, scroll to the next page of the menu and finish creating the chart. Give it the heading: GESTATION.



3

Continue to scroll down to DRAW, and press ENTER. Press TRACE to move between categories. The graph shows the relative gestation periods of the listed animals.