

TI Technology Guide for *The Next Frontier For Flight*

TI-73 Explorer

Creating Lists of Data, Displaying the Graph, and Using Math Functions with the Lists

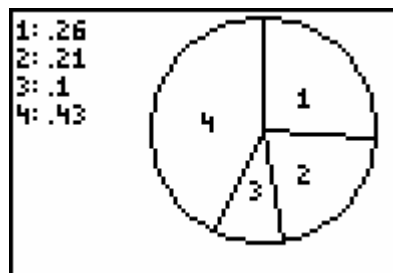
Press the **[LIST]** key to access the List Editor window. Be sure to clear any existing data in the lists by highlighting the list name, then pressing **[CLEAR][ENTER]**.

L1	L2	L3	1
-----	-----	-----	
L1(1)=			

Move the cursor to the first data position in L1 and press **[1][↓][2][↓][3][↓][4][ENTER]**. Move the cursor to the first data position in L2 and press **26%[↓] 21%[↓] 10%[↓] 43%[ENTER]**. Notice that the percent data is entered as an equivalent decimal.

L1	L2	L3	2
1	.26	-----	
2	.21	-----	
3	.1	-----	
4	.43	-----	
-----	-----	-----	
L2 = (.26, .21, .1, ...			

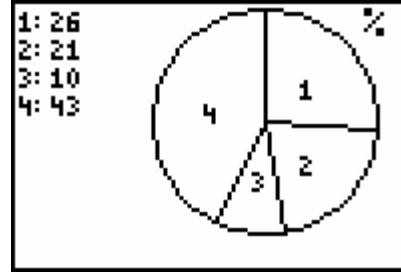
Press **[GRAPH]**. Notice that a circle graph appears with labels 1-4. The legend to the left of the graph shows the decimal value for each section of the graph.



To show the graph with the data as percent numbers, press **[2nd][Y=][ENTER]**, highlight PERCENT and press **[ENTER][GRAPH]**.

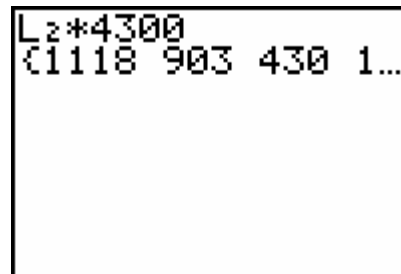
Plot1	<input checked="" type="checkbox"/>	Off
Type:	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
CategList:	L1	
Data List:	L2	
Number	Percent	

The % appears in the upper right corner and the data is in integer form as in the USA TODAY Snapshot.



You can now use a formula to find the number of responses represented by each section of the graph. Press 2nd LIST to access the STAT menu. Select **2:L₂** and press ENTER .

You will see **L₂** on the Home screen. Remember that this list contains the percent data from the graph. Press X **4300** ENTER to multiply each element of **L₂** by the total number of responses represented by the circle. You will now store the calculated data to **L₃**. Press STO 2nd LIST DOWN DOWN ENTER .



Now press LIST to see the number of responses represented by each section of the graph.

L1	L2	L_3	3
1	.26	1118	
2	.21	903	
3	.1	430	
4	.43	1849	
-----	-----	-----	
L3 = (1118, 903, 43...			

CellSheet™ App with the TI-83 Plus (individual purchase or site license)

CellSheet™ App with the TI-83 Plus Silver Edition (preloaded on handheld)

Creating a Spreadsheet and Displaying the Graph

Open a new spreadsheet.

Press **[2nd][ALPHA]** to lock in alpha mode for entering the categories of data in row 1 and section labels in column A. Start each new cell's text with the quotation mark by pressing **[+]**.

S01	A	B	C
1	"SECTION		
2			
3			
4			
5			
6			

A1: "SECTION [Menu]

Enter the percent data in column B.

S01	A	B	C
1	SECTION	PERCENT	NUMBE
2	SCIEX	26	
3	EARTH	21	
4	FLYFAS	10	
5	EXPLOR	43	
6			

C6: [Menu]

Use a formula to calculate the numbers of responses represented by each section of the graph. In cell C2, enter the formula by pressing **[STO▶]** to insert the =, then press **[ALPHA][APPS][2][÷][1][0][0][×][4][3][0][0][ENTER]**.

FLIG	A	B	C
1	SECTION	PERCENT	NUMBE
2	SCIEX	26	1118
3	EARTH	21	
4	FLYFAS	10	
5	EXPLOR	43	
6			

C2: =B2/100*4300 [Menu]

To copy the formula for the remaining cells in the NUMBER column, look at the lower part of the screen, press **[ZOOM]** (the key below the Copy tab).

S01	A	B	C
1	SECTION	PERCENT	NUMBE
2	SCIEX	26	1118
3	EARTH	21	
4	FLYFAS	10	
5	EXPLOR	43	
6			

[Cut] [Copy] [Menu]

Press $\boxed{Y=}$ (the key below Range tab).

S01	A	B	C
1	SECTID	PERCENT	NUMBE
2	SCIEK	26	1000
3	EARTH	21	
4	FLYFAS	10	
5	EXPLOR	43	
6			

[Range] [Paste] [Menu]

Press $\boxed{\downarrow}\boxed{\downarrow}\boxed{\downarrow}$ to highlight the other 3 cells in the column.

S01	A	B	C
1	SECTID	PERCENT	NUMBE
2	SCIEK	26	1000
3	EARTH	21	
4	FLYFAS	10	
5	EXPLOR	43	
6			

C3:C5 [Paste] [Menu]

Press $\boxed{\text{TRACE}}$ (the key below Paste tab).

All the cells now have the appropriate data.

Press $\boxed{\text{GRAPH}}$ (the key below Menu).

S01	A	B	C
1	SECTID	PERCENT	NUMBE
2	SCIEK	26	1118
3	EARTH	21	903
4	FLYFAS	10	430
5	EXPLOR	43	1849
6			

C5: =B5*4300/100 [Menu]

Select **4:Charts**, and **7:Pie**.

```

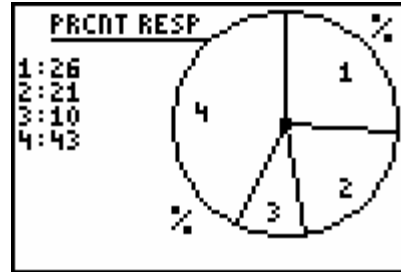
CELLSHEET MENU
1:File...
2:Edit...
3:Options...
4:Charts...
5:Help
6:Quit CellSheet
    
```

To display the circle graph with the percent information displayed as in the Snapshot, complete the Categories, Series, Percent, and Title information as shown. Highlight **Draw** and press $\boxed{\text{ENTER}}$.

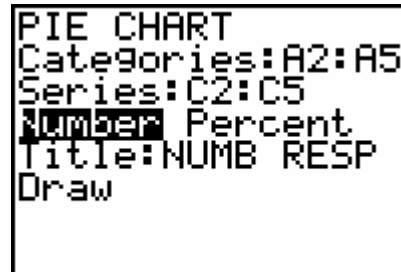
```

PIE CHART
Categories:A2:A5
Series:B2:B5
Number:Percent
Title:PRCNT RESP
Draw
    
```

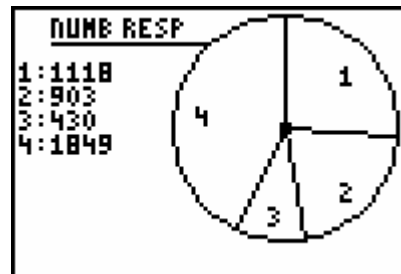
The graph is displayed as shown.



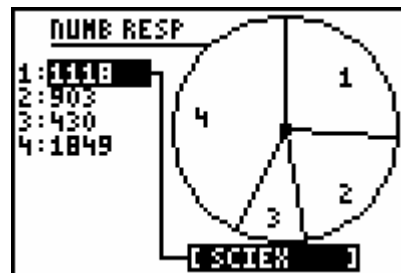
To display the circle graph with the number of responses displayed, complete the Categories, Series, Number, and Title information as shown. Highlight **Draw** and press **ENTER**.



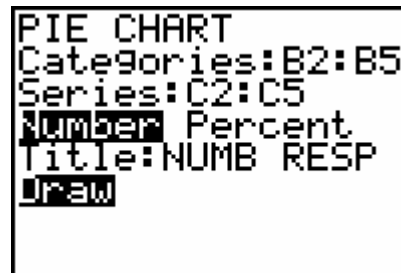
The graph is displayed as shown.



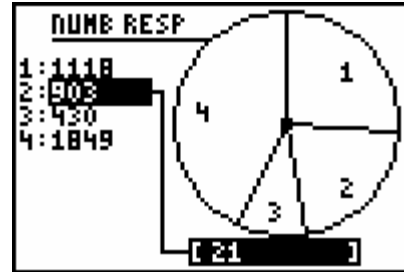
Using the down cursor arrow highlights the number of responses and the section label.



Completing the information as shown yields a similar graph as above.



Using the down cursor arrow reveals that the **percent** information is shown instead of the section label.



If desired, save the spreadsheet by pressing $\text{2nd} \text{MODE}$ until the **Menu** tab is shown on the spreadsheet screen. Press GRAPH to select **Menu**, ENTER **2:Save As**, and enter the desired name beside **New:** (FLIGHT, for example).

The calculator screen shows the following menu options:

```
OPEN...  
▶ FLIGHT  
GRADES1  
S01
```

The spreadsheet will be available from the CellSheet main menu screen until deleted.