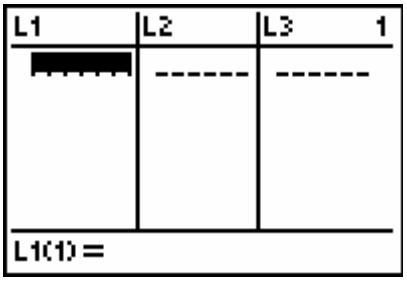
# **TI Technology Guide for** Growing bigger by the decade

## TI-83 Plus and TI-84 Plus Families

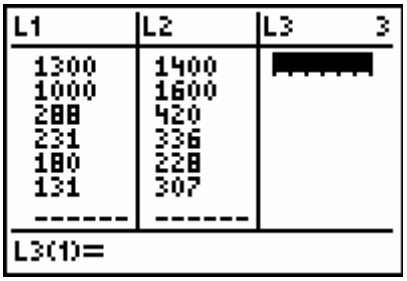
Creating Lists of Data, Using the List Editor to find Percent Change and People per Square Kilometer

Creating Lists of Data

1. To enter the data from the Snapshot in the activity, press STAT and select **1:Edit** to access the **List Editor** window. Be sure to clear any existing data in the lists by highlighting the list name and pressing CLEAR ENTER. If you see a list other than L1 through L6, press 5:SetUpEditor ENTER and then follow the above instructions. This will reset the default lists of L1, L2, L3, L4, L5, and L6 in the List Editor.

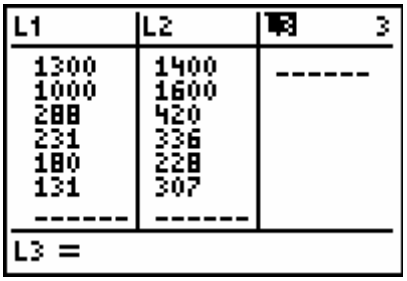



2. Move the cursor to the first data position in L1. Enter data from the table that represent the population for each country in millions for 2002. Move the cursor to the first data position in L2 and enter the corresponding population for 2050.




Using the List Editor

3. Move the cursor to the list heading in L3.



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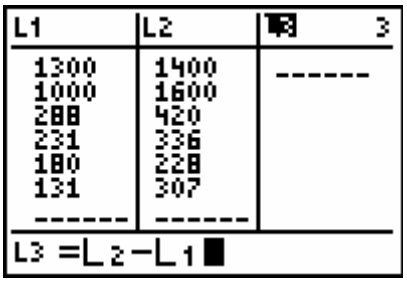
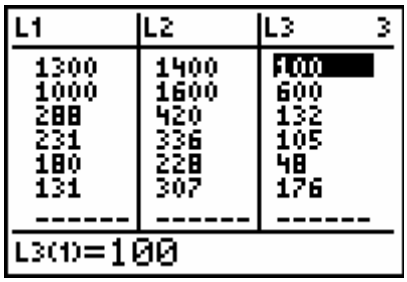
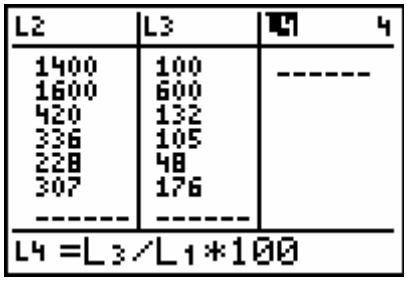
4. To calculate the change in the population from 2002 to 2050 enter 2nd [L2] − 2nd [L1] and press ENTER.

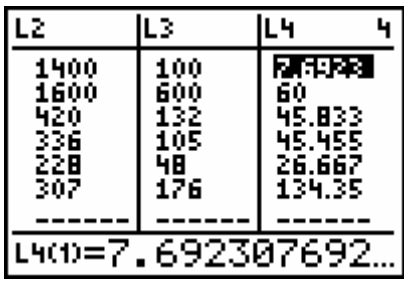



5. Next, you will calculate the projected percent change in population for each country. Move the cursor to the list heading in L4 and enter the following formula: 2nd[L3]÷[L1] × 100.




6. Press ENTER.



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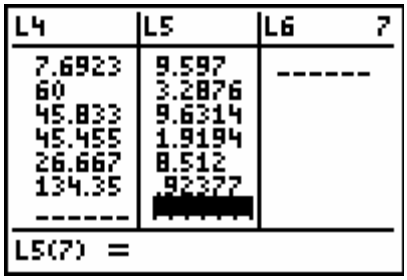
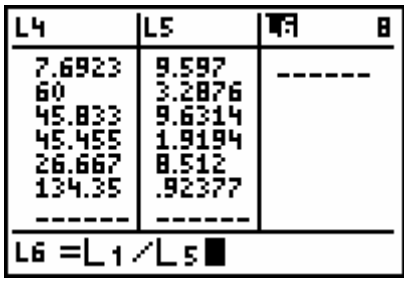
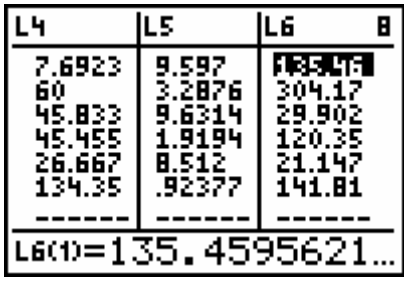
7. Enter the land area in L5 in millions for each country in 2002.




8. Move the cursor to the list heading in L6 and enter the following formula: 2nd [L1] ÷ [L5].

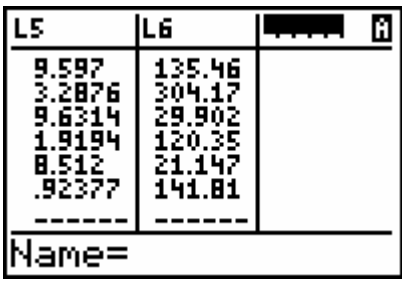



9. Press ENTER. The values in L6 represent people per square kilometer for each country.




Creating List Name

10. We have used all the default lists, L1 through L6, so now we need to create new lists and names. Display the **Name=** prompt by pressing ▲ until the cursor is on the top line, and then press ▶ until you reach the unnamed column. The **Name=** prompt is displayed and alpha-lock is on.



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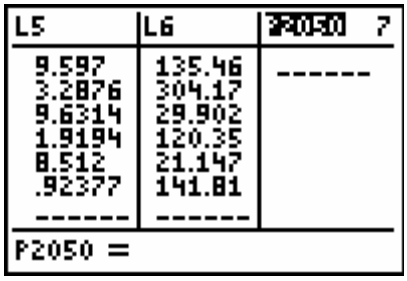
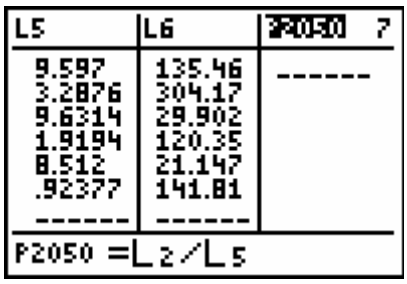
11. Enter P2050 for the list name by pressing [ALPHA]P[2][0][5][0]. This list will represent the projected population for each country in 2050. Press [ENTER] or [▼] to store the list name in the current column. List names can be one to five characters long and the first character cannot be a number.




12. Now to calculate the people per square kilometer move the cursor to the top of P2050. The population for 2050 is stored in L2 and the land area is in L6. Enter L2/L5 and press [ENTER].




13. The values in the list P2050 represent the projected people per square km in 2050.