GEO 3UR3

INSTRUCTIONS FOR USING ARCVIEW

ArcView software is available for this assignment in the UTS Computer Lab (Burke Science Building Rooms 241 and 242), in the Map Collection (Mills Library Room 110) and in the Gateway Data/GIS Lab (Mills Library Room 111A)

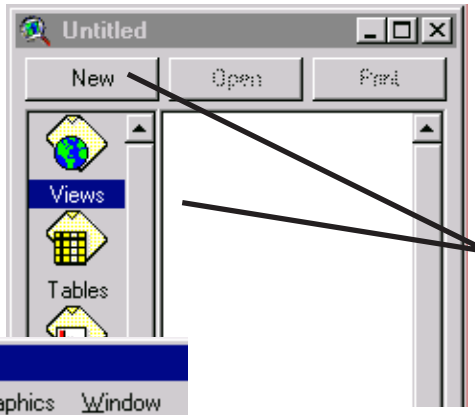
When working in the UTS Lab in Burke Science Building:

If you wish to print in the Lab, you must put money on your printer account (purchase vouchers in Titles Bookstore) 24 hours before you need to print your maps.

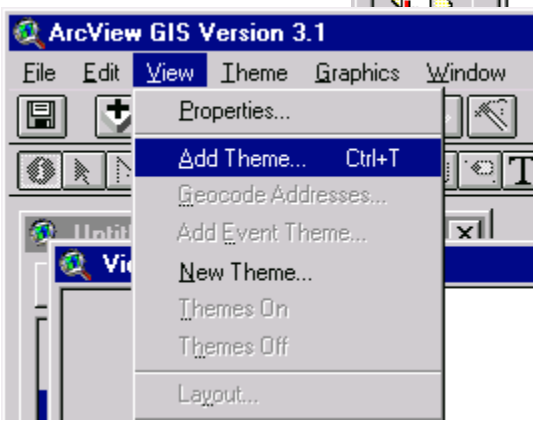
Log on to a computer. Select the **Course Folders** icon from the desktop, then click on **Science**, then on **Geography**, then on **geog3UR3**. Double click on the ArcView icon to start the software.
** You must enter the folders in this sequence to load the map files**

When working in the Map Collection or the Gateway Lab in the Library:

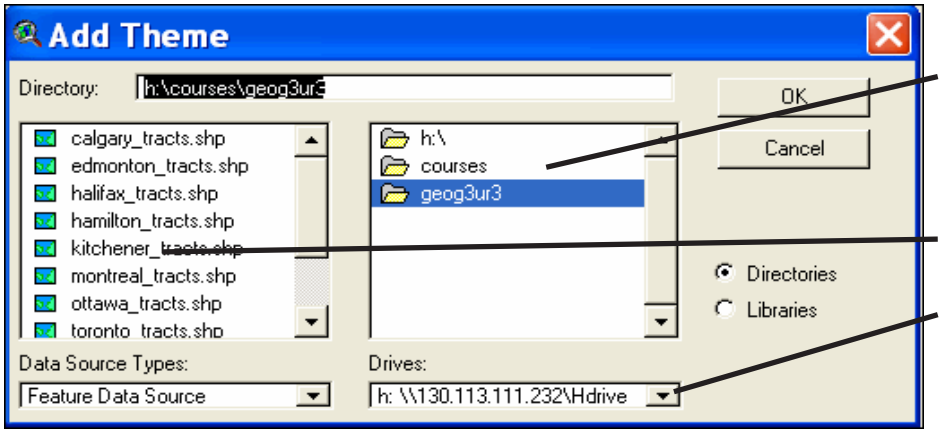
Click on Start, Programs, **Maintenance**.
Click on **Initialize map data**, then **Courses**, then **geog3ur3** to load a fresh set of boundary files.
Click on Start, Programs, and double click on **ArcView** to start the software**.**



Click on the word **Views** and then on the **New** button.



Click on the word **View** at the top of the screen, and then on **Add Theme...**



Under **Drives**, click on the drop down menu and select
C: <u>if you are in the UTS Lab</u>. In the upper right box (**Folders**), double click on the folder for **temp**.
If you do not see your files, close ArcView and start again, following the sequence for logging in on the first page - you must enter through these folders to load the data files

or **H:** <u>if you are in the Map Collection or the Gateway Lab</u>. In the upper right box (**Folders**), double click on the folder for **Courses** and then double click on the folder for **geog3ur3**.
If you don't see the Courses folder, double click on **H: to get to the root directory first.**

Choose one of the city boundary files. (It is easier to make one map at a time. This instruction uses Hamilton as an example.)

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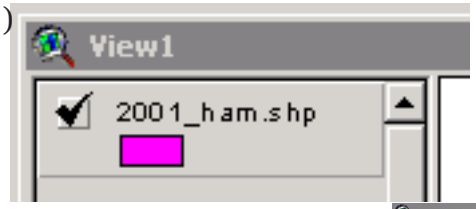
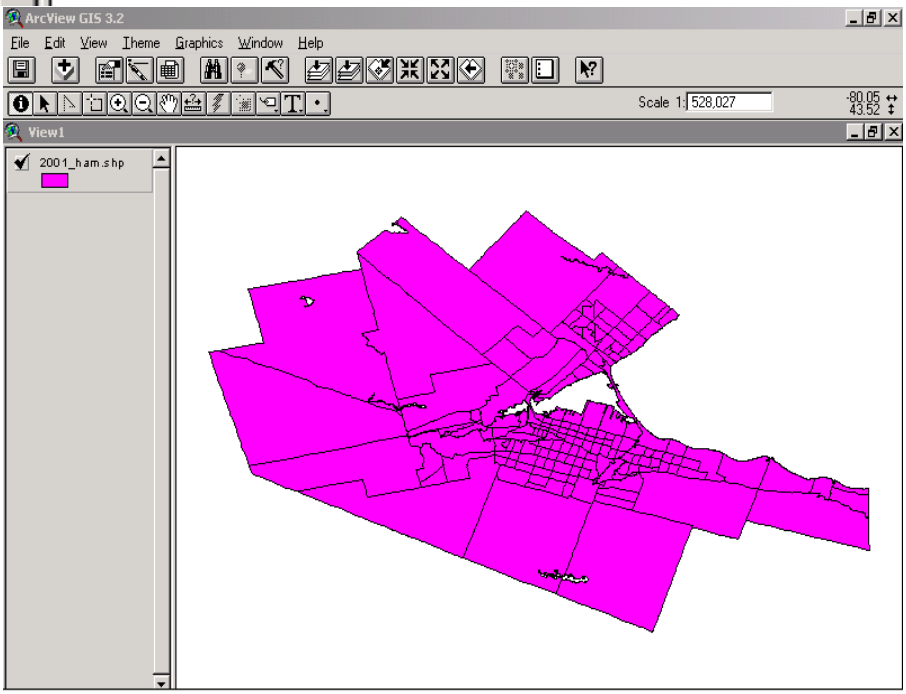
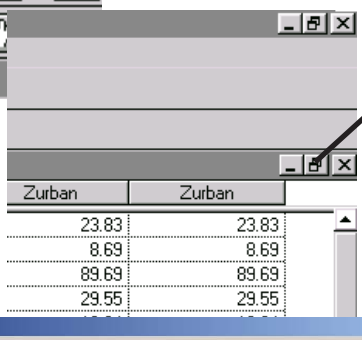


Click on the gray box to the left of the city name **.shp**, to turn on that theme.

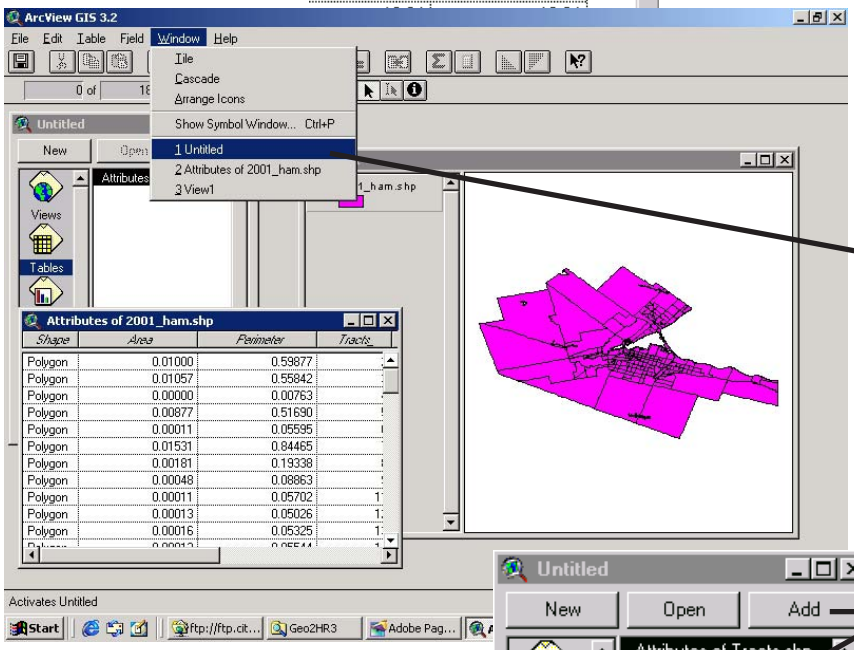
A map of the census tracts for your city in 2001 should appear.



Click on the **Open Theme Table** button.

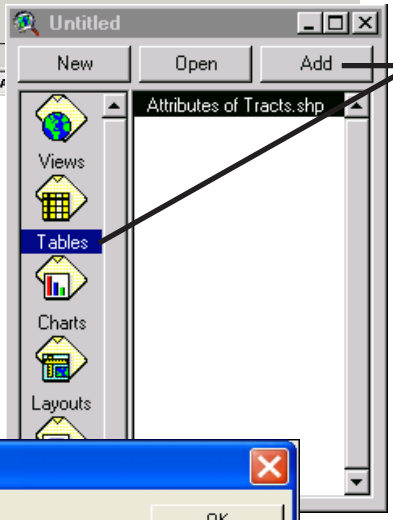


Use the Resize Window button to shrink the table to a more manageable size. Pull the sides of the table inwards if necessary to make it smaller.

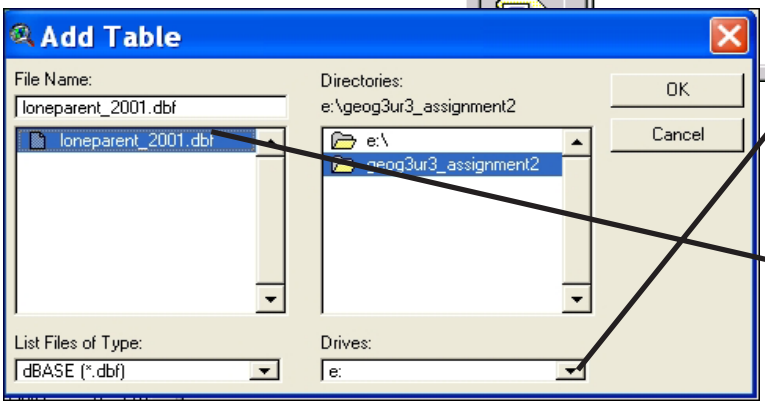


Move the table to the lower left side of the screen.

At the top of the screen, click on **Window**, and then click on **Untitled**.



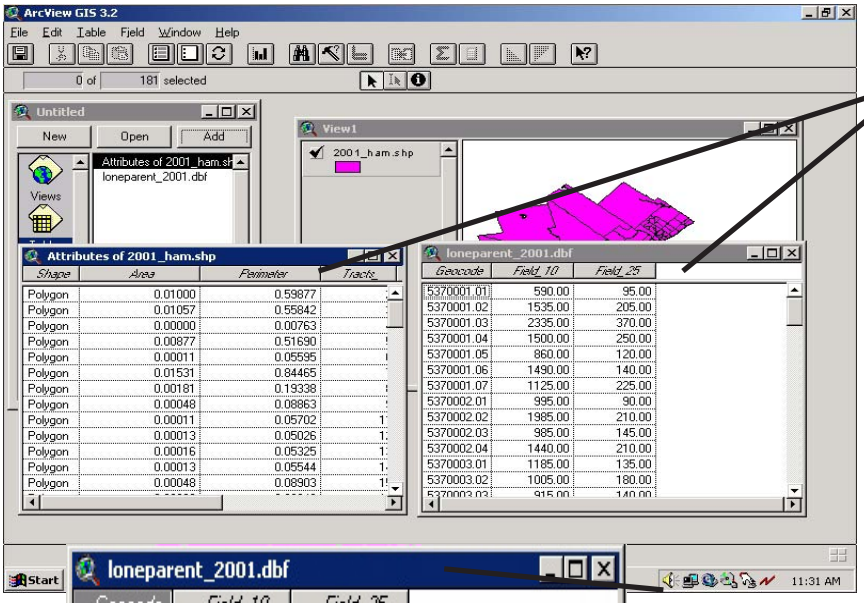
Click on the word **Tables**, and then on the **Add** button.



Navigate to the location of your E-Stat data file.

Click on the filename for your file.

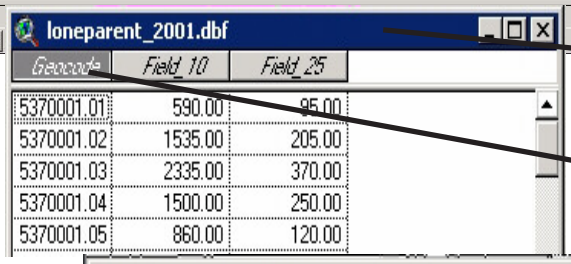
Click the OK button.



Resize and move the two table windows until you have them positioned side by side.

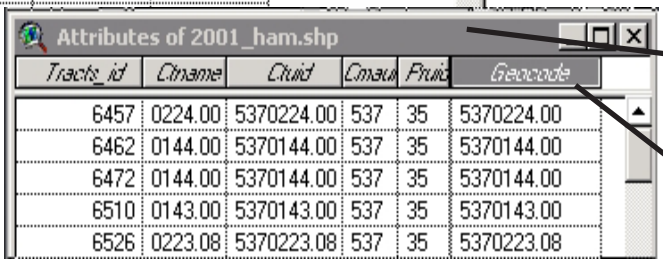
The **Attributes of your city.shp** table should be on the left side. The data **.dbf** table should be on the right.

** The order of operations in the next section is critical **



Click on the title bar of the data **.dbf** table.

And then click on the label at the top of the column called **Geocode**.



Click on the title bar of the **Attributes of your city.shp** table.

Then click on the label at the top of the column called **Geocode**. (You may have to scroll across the table to make this column visible.)

In the menu at the top of the screen, click on **Table**.

Then click on **Join**.

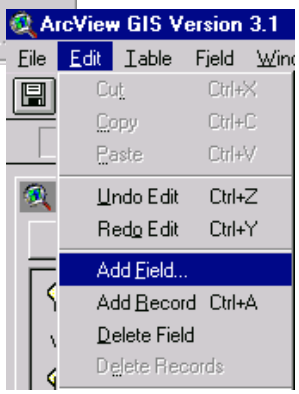
The data **.dbf** table should close.

The **Attributes of your city.shp** table should now display the columns of data from the data **.dbf** table.

** If you **do not** need to calculate a percentage, ratio or median for your variable, skip to page 7.
If you need to calculate, continue here.**

In the menu at the top of the screen, click on **Table**.

Then click on **Start Editing**.



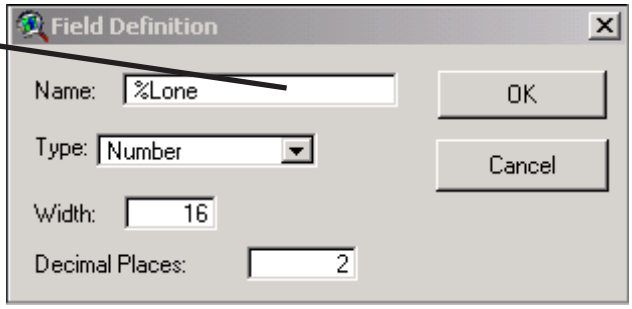
In the menu at the top of the screen, click on **Edit**.

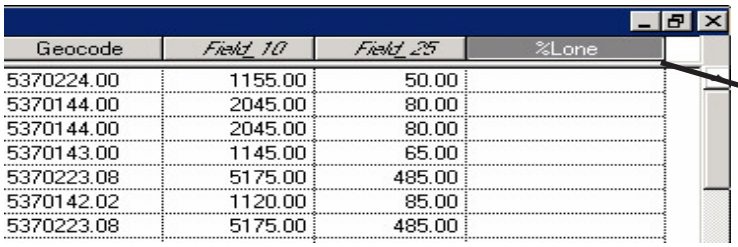
Then click on **Add Field...**

In the **Field Definition** dialogue window, click on the **Name** box and type a name for the new field which will contain the calculated average or percentage.

Leave Type set at Number.
Change the Width and number of Decimal Places if you wish.

Click the **OK** button.



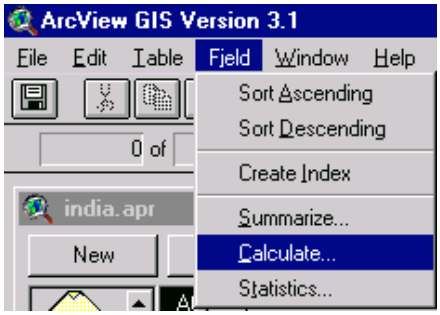


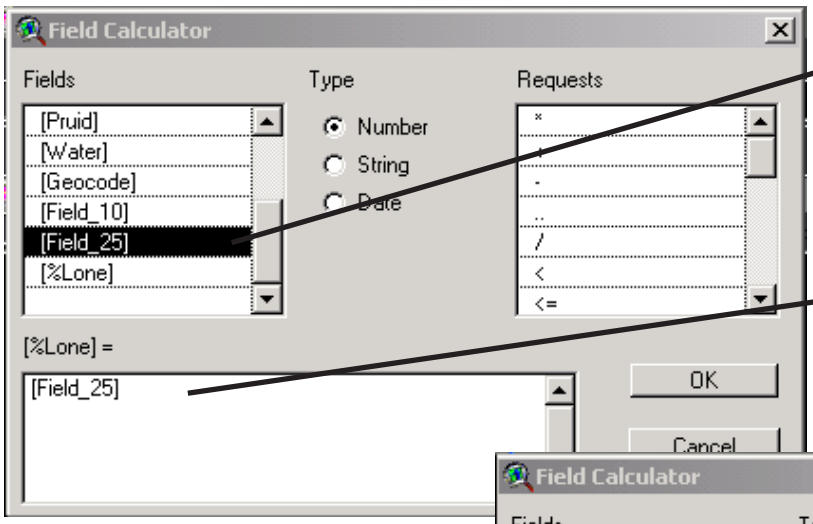
Geocode	Field_10	Field_25	%Lone
5370224.00	1155.00	50.00	
5370144.00	2045.00	80.00	
5370144.00	2045.00	80.00	
5370143.00	1145.00	65.00	
5370223.08	5175.00	485.00	
5370142.02	1120.00	85.00	
5370223.08	5175.00	485.00	

A new column with this name should be displayed in the **Attributes of Your City.shp** table.

To calculate the values for this field, click on **Field** at the top of the screen.

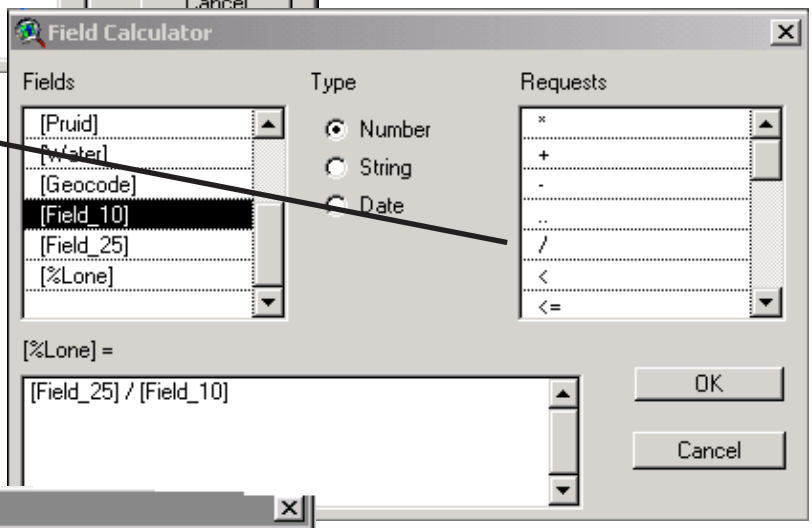
Then click on **Calculate...**





In the Field Calculator dialogue window, scroll down the **Fields** list and double click on the field name of the numerator in your calculation.

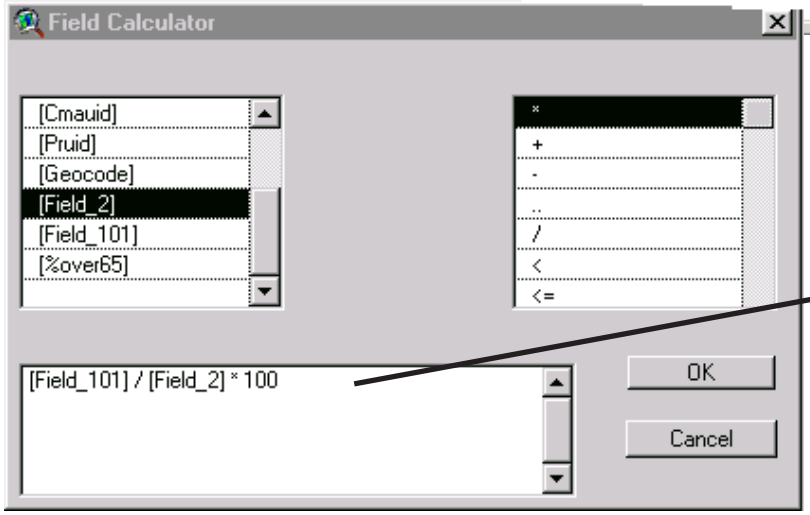
This field name should appear in the lower box.



In the **Requests** box, double click on the division sign (/).

In the **Fields** box, double click on the field name of the denominator in your calculation.

These should be added to the query in the lower box.

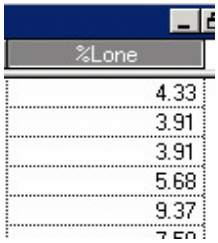


In the **Requests** box, double click on the multiplication sign (*****).

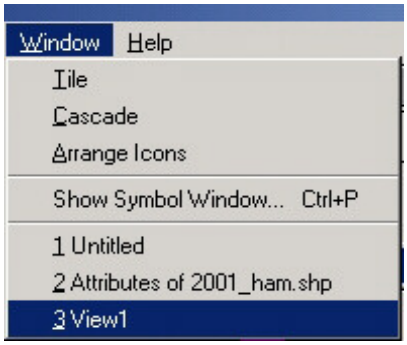
Then type the number 100.

The final query should read [first field name] / [second field name] *** 100**.

Click the **OK** button.



The new field should now show values.

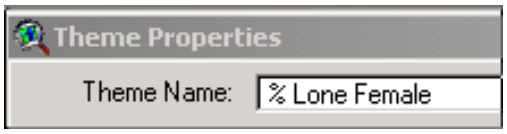


In the menu at the top of the screen, click on **Window**.

And then click on **View1**, to bring your map window to the front. You may wish to maximize the window size for easy viewing.

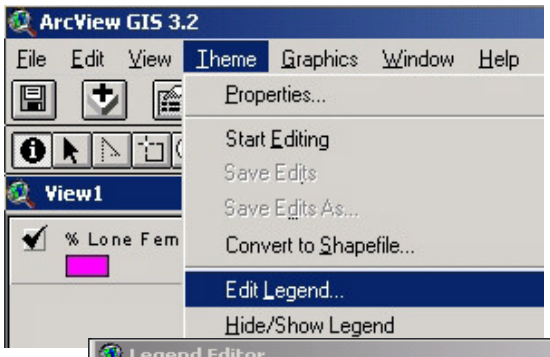
In the menu at the top of the screen, click on **Theme**.

Then click on **Properties...**



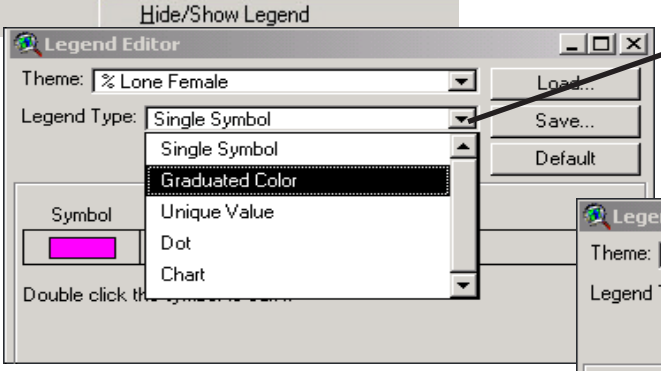
In the **Theme Name** box, type a name for this variable. This is the label that will appear above the legend on your map. Keep it short.

Click the **OK** button.

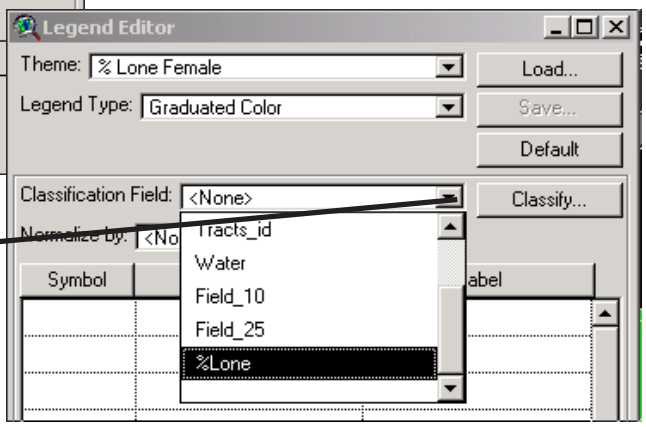


In the menu at the top of the screen, click on **Theme**.

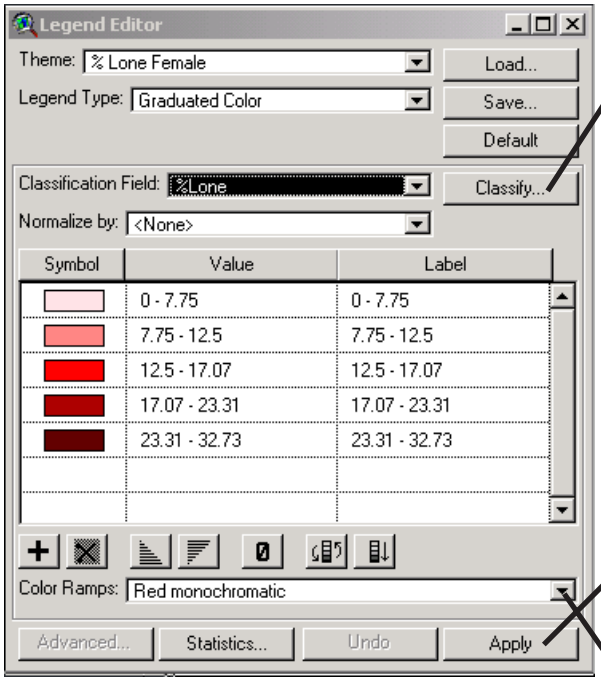
Then click on **Edit Legend**.



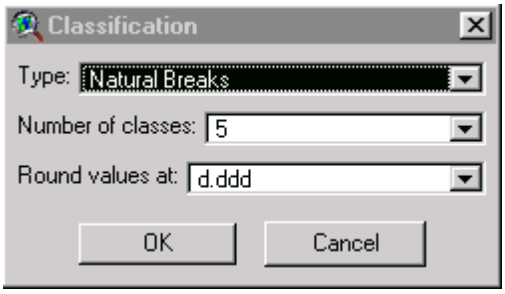
In the drop down menu for **Legend Type**, click on **Graduated Color**.



In the drop down menu beside **Classification Field**, click on the name of the field which you created.



Click on the **Classify** button.

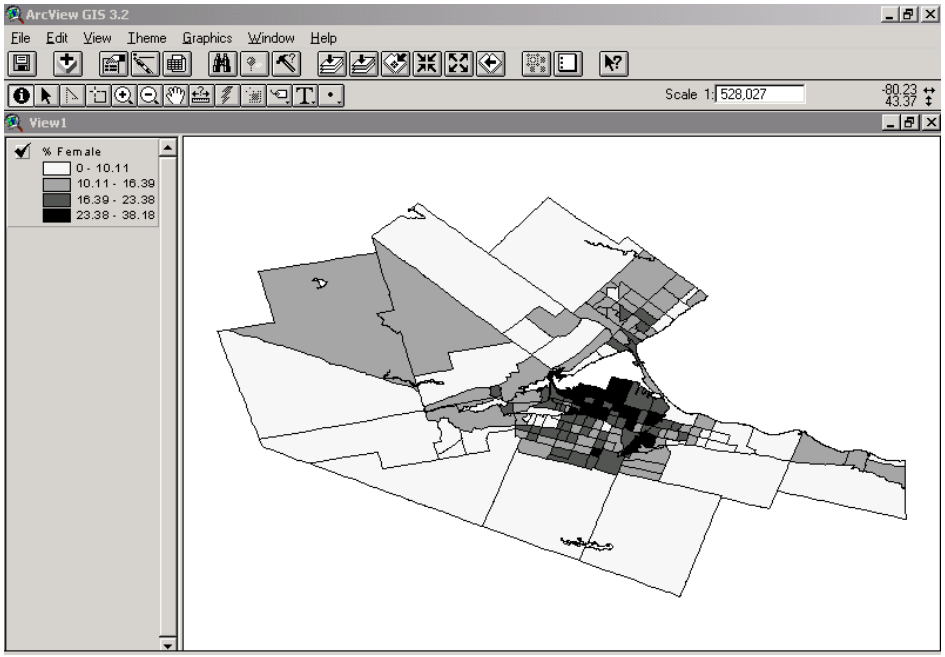


In the **Classification** window, experiment with different **Numbers of classes**.

Click on the **Apply** button, to see what each change does.

To print in black and white, change the **Color Ramps** to **Gray monochromatic**.

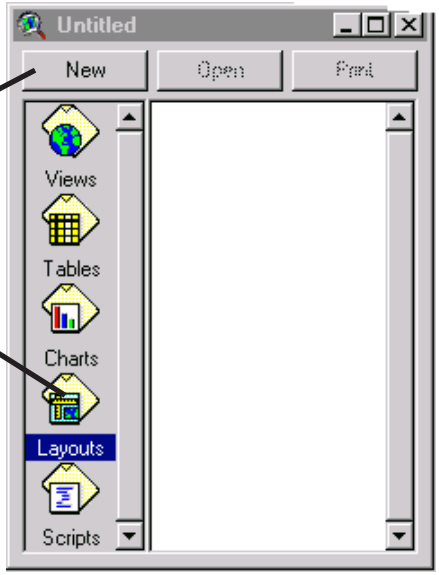
Experiment with different numbers of classes until you have produced your final map. (Click on the X button in the upper right corner when you are ready to close the Legend Editor).

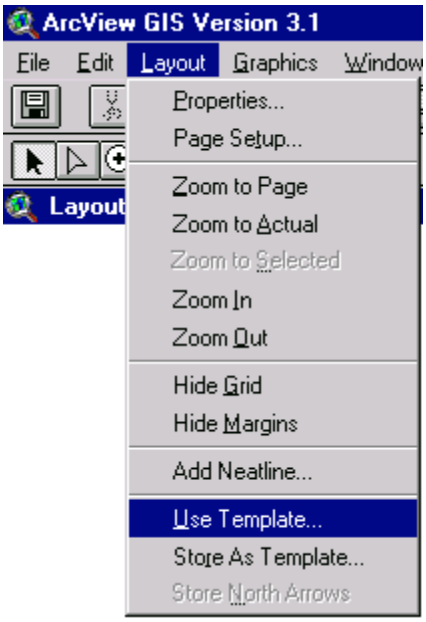


When you have your final map ready, go to the top of the screen and click on **Window**, then on **Untitled.**

Click on the word **Layouts**.

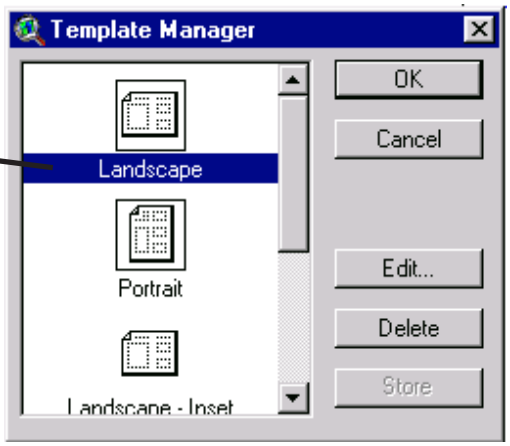
Then click on the **New** button.





In the menu at the top of the screen, click on **Layout**.

Then click on **Use Template...**



** If you want to create a single map, follow these instructions. **

In the **Template Manager** window, click on **Landscape** or **Portrait**, as appropriate for the shape of your city..

Click the **OK** button.

Continue with the instructions on page 11.

** If you want to create a map with a more detailed inset of the downtown area, follow the instructions on page 10. **

** If your final product is a single map, skip this page.
Follow instructions on this page if you want to produce a map with a more detailed inset of the downtown area. **

To produce a map with an inset, you need to create a second View.

At the top of the screen, click on **Window**, then on **Untitled**.
Click on the icon for **View** and then on the **New** button (see insructions page 1).
This will create **View2** which will become the inset of the downtown area.

At the top of the screen, click on **Window,** and then on **View1.**

At the top of the screen, click on **Edit** and then on **Copy Themes...**

At the top of the screen, click on **Window,** then on **View2.**

At the top of the screen, click on **File** and then on **Paste.**

You should see a copy of your map in the second view window. What appears in this View will be the inset on your final map. Use the **Zoom** tool  to zoom in on the desired downtown area.

When the map in View2 is satisfactory, at the top of the screen click on **Window** and then on **Untitled.**

Click on the icon for **Layouts** and then on the **New** button (or **Open Layout1** if you have already created it.)

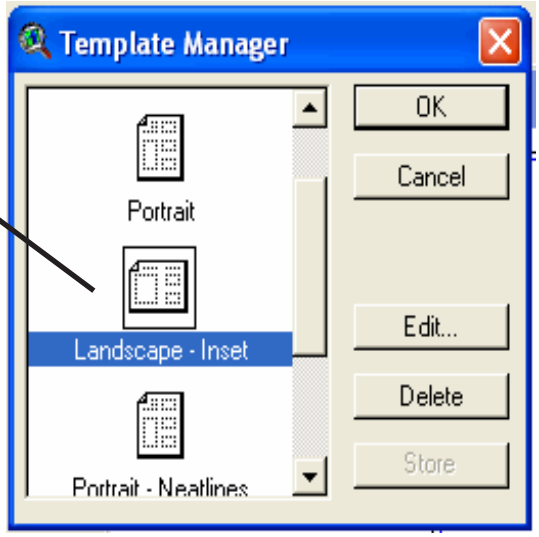
At the top of the screen, click on **Layout** and then on **Use Template.**

In the **Template Manager** window, click on **Landscape - Inset.**

Click the **OK** button.

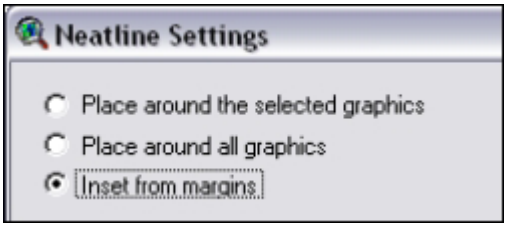
View1 should load as the main map, and View2 should load as the inset.

To reverse the order (or if either map does not display), click once to select the map area in the layout. At the top of the screen, click on **Graphics** and then **Properties** and select the correct View.



A Layout automatically loads your map, your legend, a north arrow and a scale bar.

To draw a neat line around the map, click again on **Layout** at the top of the screen, and this time select **Add neatline...**



Click on the radio button beside **Inset from margins.**

Leave default settings at 0.25 inches in all boxes and click **OK.**

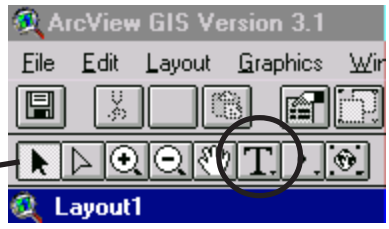
Double click on the **<Emply Text>** box, and type a title for your map. Click OK.

Click once on any element (title, map, legend, north arrow or scale bar) to select it.
Black squares will appear in the corners of a selected object.

When you see a double-headed arrow  , you can resize the object by pulling the corner black squares in or out.

When you see a four-headed arrow  , you can move the object by clicking in the centre and dragging.

To add a Source or other additional text to the map, click on the **Text** button  and type the desired text.



After you have used the Text tool, you must turn it off by clicking the Pointer tool  .

When you have finished your map completely, click on **File**.

Choose **Print...** to send the map to the printer.
Check the printer options under **Setup** to confirm landscape for the paper setting.
Click **OK.**

Choose **Export...** to save the map as a file for printing later.
Under **List Files by Type**, select the last option **JPEG.**
Indicate a drive letter and filename. Click **OK.**
Email the file to yourself for printing.