

# A Populous Place State Pie Chart

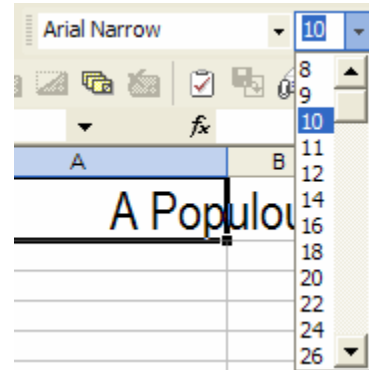
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## Step 1

Start Microsoft Excel and a blank workbook will open.

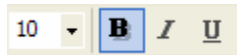
## Step 2

Click in cell C1 once to highlight the cell and change the font to 24-point. You can use the pull-down font menu on the formatting toolbar.



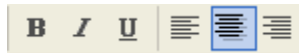
## Step 3

Now let's apply bold text style to the cell. Click on the bold icon in the formatting toolbar. Alternatively, you can pull down the format menu and select font, choose bold in the dialog box.



## Step 4

Let's apply center formatting to cell C1. With the cell still selected, click on the center alignment button on the formatting toolbar.



## Step 5

Type (A Populous Place) in cell C1. The text should be 24 point, bold, and centered.

## Step 6

Now click in cell F1 and type your name. You can make the font bold if you like.

## Step 7

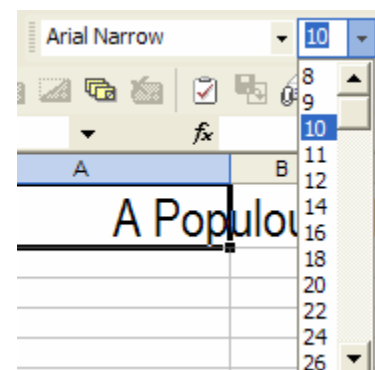
Type (Place) in cell B11 and (Population) in cell C11

## Step 8

Type the names of the five most populated cities in your state in cells B12 through B16. Type (Remainder of State) in cell B17.

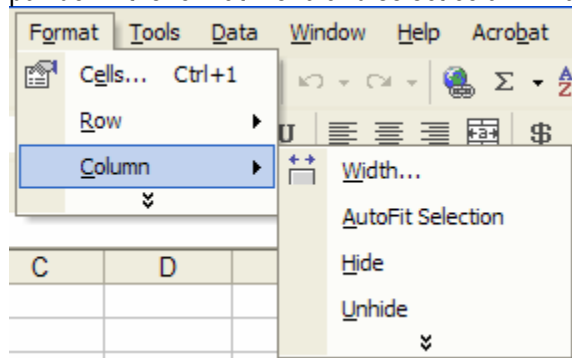
## Step 9

Select cells B11 through C17 by clicking and holding on cell B11 and dragging to cell C17. Apply a font size of 12 point to the selected cells using the pull down font menu on the formatting toolbar.



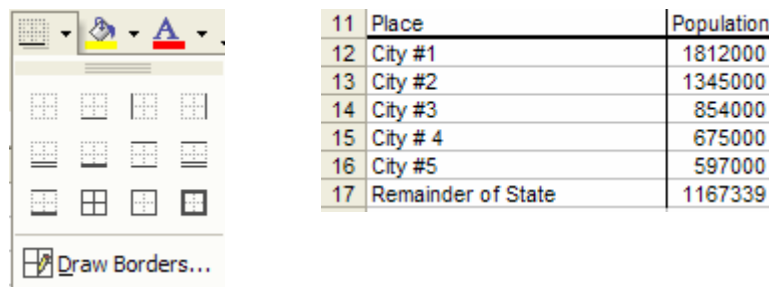
### Step 10

We'll now use the AutoFit feature to better fit the text we have typed. With the cells still selected, pull down the format menu and select column-AutoFit Selection.



### Step 11

Let's apply some more formatting to these cells. Select cells B11 and C11. Apply a bold style to them. Now give them a lower dark border using the border button on the formatting toolbar.

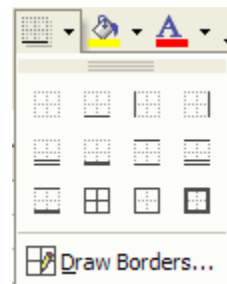


### Step 12

Now select cells B11 through B17. Apply a light right border to these cells. Below is what your cells should look like with the text formatting and borders

### Step 13

Select cells B20 through C21. Apply a font size of 12 point and a border to all edges.



### Step 14

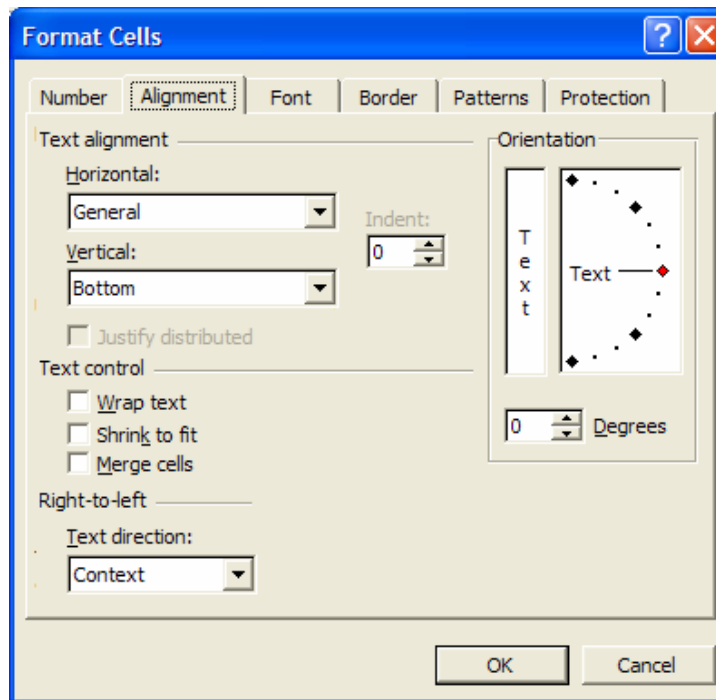
Select cell B20 and type (Population sum of 5 cities). Select cell B21 and type (Population of entire state).

### Step 15

Select both cells (B20 and B21) and apply a bold style. Now we will wrap the text in the cells so the text fits. Pull down the format menu and select cells.

### Step 16

You now see the Format Cells dialog box. Click on the Alignment tab. Make sure Wrap text is checked. Click on Ok.



### Step 17

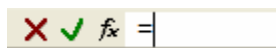
Using the data sheet "Montana by the Numbers", enter the populations of the five largest cities in Montana. These should be entered in C12 through C16. In cell C21, enter the population of the entire state.

### Step 18

Now you can check your math! We will enter two formulas into the spreadsheet-one will automatically add the population of the five cities, and the other will subtract this sum from one population of the entire state to give us the population of the remainder of the state. Click on cell C20 to select it.

### Step 19

The difference between a formula and regular text in a cell is that a formula always begins with an equals (=) sign. In the formula bar, click on the equals sign ( you could also type it from the keyboard.) This is the first part of our formula.



### Step 20

Now remember what we are adding-the five populations of the cities. Those numbers are all in cells C12 through C16. So, we have to enter those cells into our formula. It's easy! Click once on cell C12. You should see C12 in the formula bar after the = sign. Now repeat for cells C13, C14, C15, and C16.



#### Step 21

In order to finish entering the formula, you need to click on the checkmark (the enter button). You should now see the sum of the populations in cell C20!

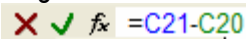


#### Step 22

The last thing we need to do before we create our chart is to enter the formula in cell C17 that will subtract the sum of the five populations from the state population. Click once on cell C17, and type an equals sign in the formula bar to begin the formula.

#### Step 23

You can either click once on cell C21 or type C21 to enter it into the formula bar. Now from the keyboard, type a minus (-) sign. Now click on cell C20 to enter it into the formula bar. Lastly, click on generated in cell C17 to if it matches the one on your data form!



#### Step 24

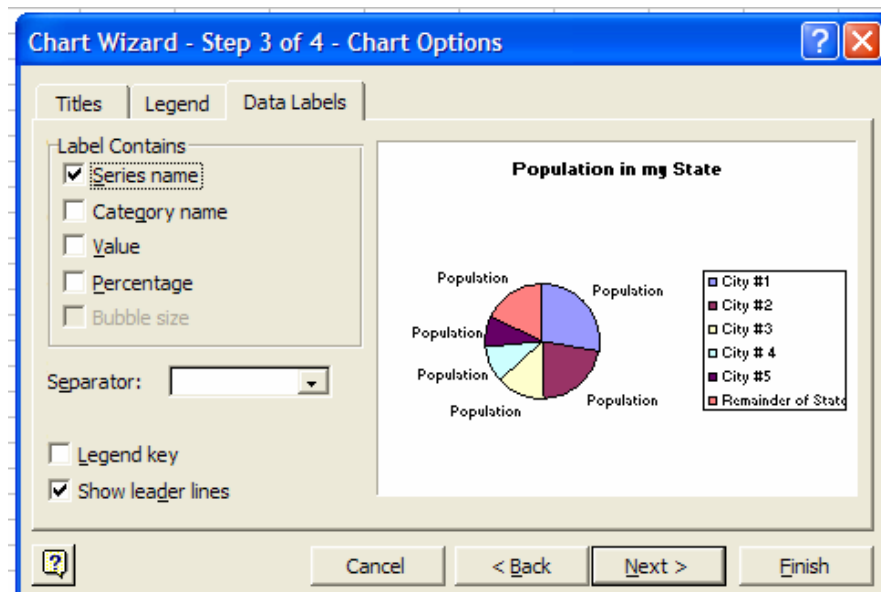
At last, we are now ready to create our pie chart! Select cells B11 through C17. Click on the Chart Wizard button. You are presented with the Chart Wizard dialog box.

#### Step 25

Select pie graph. Click on next and then again on next in step 2 of the Chart Wizard. You should now be on step 3.

#### Step 26

Click on the Titles tab and enter "Population in Montana". Click on the legend and determine the best location for your legend. Next click on the Data Labels and add Percentage labels to your graph.



#### Step 27

Finish your chart wizard by clicking on the finish button in step 4.

#### Step 28

Congratulations! Not only have you learned how to use formulas in your spreadsheet, you also know how to make a pie chart! You can move the chart wherever you wish in your document by clicking, holding, and dragging it to its new location. (You have to click and hold on white space in the chart window, not on the chart itself)

#### Step 29

Pull down the file menu and save. Name your file **population**. Save it in your user folder

#### Step 30

Print your assignment and place it in your folder.

# A Populous Place State Pie Chart

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## A Populous Place Data Form

Use the form to record the population data of your state. Use the information provided on the next page to complete this form. Remember there is math involved in this page so use your math skills.

1. Record the populations of the five most populous cities in Montana from the “*Montana By The Numbers*” page.
2. Add these five populations together and record it in the appropriate box.
3. Record the population of the entire state in the appropriate box below.
4. Subtract the population sum of the five cities from the population of the entire state and record it under “*Remainder of State.*”
5. You will be able to check your math when you are creating your chart in *Microsoft Excel* because the spreadsheet will use formulas to add and subtract for you.

| Place                          | Population |
|--------------------------------|------------|
| City #1                        |            |
| City #2                        |            |
| City #3                        |            |
| City #4                        |            |
| City #5                        |            |
| Remainder of State             |            |
| Population Sum of 5 cities     |            |
| Population Sum of entire state |            |

# Montana By The Numbers

## POPULATION

Montana (2002 Estimate) 909,453  
Montana (2000 Census) 902,195  
Montana (1990 Census) 799,065  
Density (Persons Per Square Mile, (2000) 6.2  
Land Area (Square Mile) 145,552  
Urban (2000) 54.0% Rural (2000) 46.0%

Under Age 18 (2000) 25.5% Age 18 and Over (2000) 74.5% Age 65 and Over (2000) 13.4%  
Median Age (2000) 37.5

Male (2000) 49.8% Female (2000) 50.2%

White (2000) 90.6% Black (2000) 0.3% Native American/Alaska Native (2000) 6.2%  
Asian (2000) 0.5% Native Hawaiian/Other Pacific Islander (2000) 0.1%  
Some Other Race (2000) 0.6% Hispanic/Latino Origin (2000) 2.0%

Total Housing Units (2000) 412,633  
Total Households (2000) 358,667 Person Per Household (2000) 2.45

### Top Ten Cities

|                     |        |
|---------------------|--------|
| Billings            | 89,847 |
| Missoula            | 57,053 |
| Great Falls         | 56,690 |
| Butte-Silver Bow    | 33,892 |
| Bozeman             | 27,509 |
| Helena              | 25,780 |
| Kalispell           | 14,223 |
| Havre               | 9,621  |
| Anaconda-Deer Lodge | 9,417  |
| Miles City          | 8,487  |

